

Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain



2011
Greenhouse



Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain, 2011

Forward

Work on *Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain* (“Tomato Food Safety Protocol”) was initiated shortly after the successful completion of the *Commodity Specific Guidelines for the Fresh Tomato Supply Chain, 2nd Edition* (“2nd edition”), at the request of fresh tomato supply chain stakeholders who were concerned that the 2nd edition did not provide sufficiently auditable standards or “metrics”. The general omission of metrics from the 2nd edition was intentional, as the contributors believed that operations should establish food safety requirements for themselves, based on the considerations described in the 2nd edition. Nevertheless, both buyers and suppliers in the tomato supply chain expressed concern that they were unsure of what constituted “compliance”. Buyers were concerned that operations might interpret the considerations in the 2nd edition too loosely, allowing food safety risks to go uncontrolled. Suppliers were concerned that auditor interpretations of the 2nd edition would result in an unending spiral of ever increasing audit expectations, resulting in additional costs without improving food safety. Thus, the Tomato Food Safety Protocol was initiated in October 2008 in an effort to harmonize food safety audit standards for the fresh tomato supply chain.

To prevent the Tomato Food Safety Protocol from becoming just another standard, in addition to rather than replacing others, a critical mass of fresh tomato “buyers” (e.g., processors, foodservice and retail) were asked to participate and, if successful, be prepared to accept audits of their suppliers using this standard. In this way, the goal was ultimately to replace the multitude of similar but different audit standards with this one.

The Tomato Food Safety Protocol was developed during a series of open meetings. Invitations were extended to all participants in the 2nd edition – from industry, government and academia, Mexico and Canada – and additional participants welcomed as they were identified. In an effort to assure transparency, no one who asked to participate was excluded. The individuals and organizations participating in development of the Tomato Food Safety Protocol are listed below.

The Tomato Food Safety Protocol began with the 2nd edition as a basis, endeavoring to establish “requirements” that were as specific as possible, but keeping in consideration different needs based on region, sub-commodity (e.g., round vs. Roma vs. grape or cherry tomatoes), operation size and equivalent growing or handling practices. Every effort was made to base these requirements on current science, but the participants accepted that these requirements would likely change as future research provides better information.

Although the initial intention was to establish mandatory metrics (e.g., how often, how many, how far), the participants were, frankly, surprised to find that current science provided little basis for universal numerical standards. Consequently, requirements more often became performance expectations rather than numerical measurements.

The entire fresh tomato supply chain was considered in this effort, but the participants recognized that the goal of replacing other, existing audit standards with the Tomato Food Safety Protocol would only be successful in operations that are primarily handling tomatoes; e.g., open field operations, harvesting, field packing, greenhouses, packinghouses, tomato repackers, tomato distributors and warehouses. Other operations in the tomato supply chain, i.e., fresh-cut processors, retailers, and foodservice operations, while handling tomatoes, would also be handling a far greater diversity of foods. The participants considered tomato-specific standards for those operations but, since tomato-specific standards would not replace existing audit standards for such operations, ultimately decided not to establish stand-alone audits. Therefore, while the Tomato Food Safety Protocol may be informative to all operations that handle tomatoes, it is specifically targeted to operations that undergo tomato-specific audits.

Format of the Tomato Food Safety Protocol and Checklists and Their Use

Four sets of Tomato Food Safety Protocols were developed for use by operations and auditors: Open Field Production, Harvest and Field Packing; Greenhouse; Packinghouse; and Repacking and Distribution. Each set contains auditable requirements – “Items” – that the participants concluded should be attainable and in place for any North America fresh tomato operation, regardless of region, size, growing practice (e.g., organic) or sub-commodity handled. As appropriate to the type of operation, the Items were further divided into sections that the participants considered critical for a food safety program, such as management responsibility, facility and environmental assessment, raw materials and inputs including water, pest control and pesticide usage, tomato cleaning operations, sanitation, food contact containers, food contact tools and equipment, employee health and hygiene, education and training, and traceback and recall programs.

For each Item, the Tomato Food Safety Protocol contains a simply-stated Requirement, and a Procedure that restates the requirement in other words, in an effort to minimize misunderstanding. The Requirement and Procedure are instructions to the operation to clearly describe the programs that are expected to be in place and maintained, and that will be audited. Each Item also includes a Verification and Corrective Action/Disposition. The Verification is provided as instruction to the auditor how to verify whether the operation has complied with the Requirement. The Corrective Action/Disposition is provided as instruction to the operation if the audit determines that compliance has not been achieved. While each of these is not necessarily binding on the operation or the auditor – equivalent procedures and actions that meet the intent of

the Item are acceptable or, in some cases, not applicable – they are provided in an effort to minimize “standards creep”, which has led to the multitude of disparate and often conflicting standards.

Each of the four Tomato Food Safety Protocols is accompanied by a Checklist, which provides an audit format that auditors can use to assess and record compliance. Each Checklist begins with a cover page that provides information about the auditor, the audited operation and the audit. That is followed by an Audit Summary in which the auditor will indicate the number of Items rated as C, CAN, IAR and NA (see below) as well as listing the Item numbers requiring corrective action; i.e., judged as CAN or IAR. The participants intentionally chose not to “score” the audit, indicating that audit scores tend to distract from auditor observations and judgments.

The body of the Checklist mirrors the associated Tomato Food Safety Protocol, with all of the Items and Requirements listed. The Checklist also includes, for each Item, an opportunity for the auditor to indicate the level of compliance observed. The possible “judgments” were left generally broad and include the following: C, Compliant with requirement; CAN, Corrective Action Needed to be compliant; IAR, Immediate Action Required because of imminent food safety risk; and NA, not applicable or not needed. A judgment of C or NA is self-explanatory. A judgment of CAN, Corrective Action Needed to be compliant, is expected when the operation has clearly not complied with the intent of the Item, but that noncompliance is not reasonably likely to result in a food safety issue. A judgment of IAR, Immediate Action Required because of imminent food safety risk, is expected when a noncompliance may reasonably and directly result in an unacceptable food safety risk, and requires immediate corrective action to prevent the risk from continuing. IAR was not provided as a possible judgment for audit Items that the participants could not conceive of a noncompliance resulting in a food safety risk; e.g., Item 1.5 in the Greenhouse checklist, *Operation has a written procedure and timelines for implementing and documenting corrective actions*. The Checklist also has a space at each Item in which the auditor can provide Comments to explain the judgment. An Auditor Comment is required for all CAN and IAR judgments.

It was the intention in the development of these Tomato Food Safety Protocols for the *Commodity Specific Guidelines for the Fresh Tomato Supply Chain*, 2nd edition, to serve as a prerequisite reference to the use of this document. Each of the four Tomato Food Safety Protocols and their associated Checklists are intended for discrete segments of the fresh tomato supply chain, and it is the responsibility of the user to utilize the appropriate document. Throughout the documents, the term “shall” is used to indicate an action mandatory for compliance, while “should” indicates a recommended action that may not be necessary for some operations. In an operation’s food safety program that is compliant with the Tomato Food Safety Protocol, standard operating procedures (SOPs) may be designed to cover more than one requirement.

Performance of an audit to verify compliance with the Tomato Food Safety Protocol is expected to include reviews of pertinent policies and SOPs, official records demonstrating compliance, and visual observations of the operation to determine the current level of compliance. In order to demonstrate compliance, all required documentation shall be kept on file and made available for review by the auditor. Lot-specific records shall be retained for two (2) years or as required by prevailing laws or regulations. Observation of incomplete or otherwise noncompliant records required for compliance shall require a corrective action, such as retraining of the responsible individuals. The operation shall assess whether the noncompliant records indicate a potential food safety risk. Where training is required, it is expected that employees sign their training records, indicating that they understand and agree to follow the policy or procedure that is the subject of the training. Observations of noncompliances that may result in a risk of contamination of public health concern shall require an immediate corrective action and an assessment of the actual noncompliance and, if contamination is reasonably likely to have occurred, a corrective action shall be taken to prevent the affected product from being harvested or distributed into commerce. Such corrective actions shall be documented and those records shall be available for regulatory review, in compliance with prevailing laws and regulations. It is a violation of federal law (i.e., Federal Food, Drug and Cosmetic Act) to introduce or deliver for introduction into interstate commerce any food that is adulterated or misbranded. Foods, including fresh tomatoes, that are discovered to be adulterated and have been released into commerce should be recalled and the prevailing regulatory authorities notified.

2011 Revision

In late 2010, the tomato industry reconvened to review the performance of the Tomato Food Safety Protocol, and recommended several changes. In this Greenhouse document, the Procedure and auditor Verification for item 2.1 and the Procedure for item 13.6 were clarified, and a new item 2.2 was added. The changed sections are displayed in red. The Checklist that accompanies this document was also amended to include the new item 2.2.

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1. Management Responsibility				
Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
1.1	Operation has designated an individual responsible for food safety.	Operation prepares an organizational chart or other documentation that designates the responsible individual. Individual can be a dedicated employee or part-time contracted.	Auditor reviews the organizational chart or other document for the designated food safety individual.	Operation designates who is responsible for food safety. Organizational chart or other documentation is developed or revised.
1.2	Responsible individual has evidence of training in food safety relevant to tomatoes.	The point person for food safety demonstrates knowledge of food safety principles. Food safety designate has completed at least one formal food safety course/workshop or by job experience.	Auditor reviews the evidence of the individual's training relevant to tomato food safety, such as a degree or course certificate or receipt, or attendance at a relevant food safety meeting, or company training record. If the operation passes the food safety audit, then the auditor will judge the food safety individual's training to be adequate.	Individual must obtain demonstrable food safety training.
1.3	Operation has current copies of the <i>Commodity Specific Food Safety Guidelines for the Fresh Tomato Supply Chain, Food Safety Programs and Auditing Protocol for the Fresh Tomato Supply Chain</i> and additional food safety documents as required by state and/or federal regulation.	Operation has a current copy of the Guidelines, this audit document and all other required documents.	Auditor observes the current copies at the operation.	Operation obtains current copies.

1.4	Operation has procedures for conducting self-audits, and conducts self-audits to verify compliance with established internal policies and procedures.	Operation has a self-audit procedure and performs documented self-audits, with corrective actions, preventive measures, documentation and follow-up as needed, at a prescribed frequency sufficient to ensure compliance with established internal policies and procedures, the <i>Commodity Specific Food Safety Guidelines for the Fresh Tomato Supply Chain</i> , these Tomato Metrics and additional food safety documents as required by state and/or federal regulation.	Auditor reviews the self-audit procedures, and records of self-audits to verify compliance with the procedures.	Operation develops and maintains self-audit program, with corrective actions preventive measures, documentation and follow-up.
1.5	Operation has a written procedure and timelines for implementing and documenting corrective actions.	Operation has a written procedure to implement and document corrective actions, including timelines and sign-off by a responsible individual.	Auditor observes that the written procedure includes assignment, timeline and sign-off. Auditor observes evidence that the procedure has been followed.	Operation develops or revises the written procedure.
1.6	Operation has a “zero tolerance” policy for controllable practices and conditions that result in immediate food safety risks.	Policy establishes consequences for employees who violate established policies or procedures, resulting in an immediate food safety risk.	Auditor reviews policy, observes evidence that the policy has been followed, and interviews employees for knowledge of the policy.	Operation develops a written policy and provides training.

2. Farm History and Assessment

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
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2.1	<p>An environmental assessment has been conducted, including potential hazards on the property, past property use and adjacent land.</p>	<p>Operation has a written assessment to include a map or general description of the land being farmed, topography, land history of use, adjacent land use, water sources, and animal and wildlife presence or migration patterns. A document, signed by an authorized agent of the operation, shows that the production land, adjacent land and nearby areas have been assessed for a history of potential contamination sources including but not limited to industrial activity, toxic waste, landfill purposes, incinerator or municipal waste, sewage treatment facilities, other commercial facilities that handle potential contaminants, septic systems, domestic animal operations (such as concentrated animal feeding operations, poultry farms, hobby farms, grazing land, effluent lagoons or spray fields), surface water bodies, animal manure or compost piles, concentrated wild animal habitats or harborage areas. If the assessment indicates mitigation is warranted to control a hazard reasonably likely to occur, the document includes the mitigation strategy and its performance. Potential contamination sources, their approximate distances from the production area, and the implemented mitigation steps shall be documented in the environmental assessment. Assessments are reviewed by the food safety designate, and revised as needed, prior to each production cycle.</p>	<p>Auditor reviews the assessment documents, including:</p> <ul style="list-style-type: none"> ▪ The written assessment; ▪ The risk factors considered; ▪ The risk factors identified; ▪ The steps used to mitigate the risk factors identified. <p>Potential contamination sources, their approximate distances from the production area, and the implemented mitigation steps shall be documented in the audit report.</p>	<p>Operation develops or modifies the required document(s), assessment or reviews, as needed. If adjacent land is used to store municipal waste, and pollution control measures are not adequate, analytical tests have been conducted by the greenhouse owner/user for heavy metals, toxins, or any other hazard identified in the environmental assessment. If adjacent land is in animal husbandry or used to store animal manure, effective mitigation strategies will be employed, such as physical barriers to prevent movement of animal waste onto farm are in place – ditch, berm, slope, dike, etc. Perform training as needed.</p>
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2.2	The environmental assessment shall consider domestic animal operations.	For operations less than 400 feet from a concentrated animal feeding operation (as defined in EPA regulation 40 CFR part 122.23), poultry house, other domestic animal feeding operation or animal manure pile, the operation shall have a written risk assessment specific to that potential source of contamination and, if warranted by the risk assessment, mitigations steps shall be implemented, according to the current <i>Commodity Specific Food Safety Guidelines for the Fresh Tomato Supply Chain</i> .	Auditor shall review the environmental assessment for whether animal operations on adjacent or nearby areas were considered. If warranted by the risk assessment, auditor verifies whether mitigation steps have been described in the risk assessment and implemented.	Operation includes the domestic animal operation(s) in the environmental assessment and, where warranted, performs a risk assessment and implements mitigation steps.
2.3	Grounds are reasonably free of litter, debris and standing water.	Operation maintains grounds to prevent accumulation of litter, debris, and other potential sources of contamination or pest attractants. Areas of standing water that may contribute contamination to food by seepage, footborne filth, or providing a breeding place for pests are adequately drained.	Auditor inspects grounds and observes for compliance	Non-compliances are corrected on site. Retraining is performed.
2.4	System for removing waste materials from product handling area works efficiently.	Procedures for handling waste materials, from creation to departure from greenhouse property, are sufficient so as not to create a contamination risk.	Auditor observes waste handling procedure and practices.	Procedures are developed or revised. Non-compliances are corrected on site. Retraining is performed.
2.5	Outside garbage receptacles/dumpsters are covered or are located away from greenhouse entrances, and areas around such sites are reasonably clean.	Garbage receptacles are positioned and maintained in a manner so as not to create a contamination risk or pest attraction.	Auditor observes location and condition of garbage receptacles/dumpsters and surrounding area for evidence of contamination risk or pest activity	Procedures are developed or revised. Non-compliances are corrected on site. Retraining is performed.

3. Greenhouse				
Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
3.1	The greenhouse shall be enclosed.	The greenhouse shall be permanent or temporary structure, sufficiently enclosed to maintain a controlled environment. This does not apply to open structures such as shade or hoop houses, which should operate according to the auditing protocol for Open Field Production, Harvest and Field Packing.	The Auditor shall inspect the structure for compliance with this definition.	If the structure is not in compliance, either the facility must be brought into compliance or different audit criteria (i.e., auditing protocol for Open Field Production, Harvest and Field Packing) should be used.
3.2	A foot dip station or other measure should be used to prevent the introduction of harmful microorganisms or agents and a written record of the sanitizer and maintenance kept.	If the facility has determined that footborne contaminants are a risk to food safety, they shall have procedures that effectively prevent contaminants from being brought into the greenhouse on shoes. This could be by means of chemical disinfectants in foot dips, sprays or boot wash, or by means of a shoe change procedure. If chemical disinfectants are used, the chemical shall be used according to label instructions and monitored at a frequency sufficient to assure continual effectiveness, and records shall be maintained to demonstrate compliance.	If the facility is using footborne contamination controls, the auditor shall review the procedure, and will observe whether those procedures are being followed at the time of the audit. The auditor shall also review any associated records, including the label instructions for any chemical disinfectants used, for evidence of compliance with the facility's procedures.	If the facility is using footborne contamination controls, they shall develop or implement the procedures to be effective, including training in their use.

3.3	Glass and brittle plastic items are excluded to the extent practical from and/or protected in production, handling or packing areas. Lights have shatterproof bulbs or covers in all areas where tomatoes or packaging are grown, handled or held.	Written policy minimizes unprotected glass or brittle plastic in growing areas and all areas where tomatoes are handled or stored. All remaining glass (e.g., glass thermometers) and brittle plastic is listed in a glass and brittle plastic register and is periodically inspected. Written procedure requires investigation of all glass or brittle plastic breakages to ensure potentially adulterated product has been identified and destroyed.	Auditor reviews policy and procedures, visually inspects facility for glass and brittle plastic and its condition, verifies accuracy of glass and brittle plastic register if used, and reviews records of glass and brittle plastic corrective actions.	Policy or procedures are developed or revised. Non-compliances are corrected. Retraining is performed.
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4. Soil and Soil Amendments

Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
4.1	Soil or other growth medium shall be stored in a manner that minimizes opportunities for contamination.	If soil or growth medium is stored on-site, it is held in a sanitary manner to ensure it is not a source of contamination. Procedures for storage of growth media shall comply with prevailing laws or regulations in the location of the greenhouse.	The auditor shall observe storage location and procedures for evidence of compliance.	Operation develops a written procedure and provides training. If there is evidence of contamination of public health significance, the medium shall not be used.
4.2	Fertilizer manufacturer's instructions for usage and storage shall be followed.	Non-organic fertilizers must be used and stored in compliance with label instructions and any prevailing federal, state or local regulations. Fertilizer uses shall be documented.	Auditor reviews non-organic fertilizers used, storage location and application records.	Perform training on fertilizer handling and recordkeeping procedures, as needed.

4.3	If fertilizers containing manures or composts are used, only properly treated (composted or heat treated) manures are allowed for use in greenhouses. Biosolids are not permitted.	Soil amendment use records are available, reviewed and current (conventional or organic). If treated manures are used, records of composition, dates of treatment, methods utilized, application dates and letter of guarantee, certificate of analysis (COA) or any test results or verification data demonstrating compliance with process or microbial standards must be documented. For non-composted animal by-products-containing soil amendments, the operations shall retain a certificate or letter showing the lethality of the process. Compost applications shall be no less than 45 days prior to harvest.	Auditor reviews the amendment use documents and records demonstrating compliance with prevailing national or local established composting or heat treatment standards or guidelines.	Operations must obtain the necessary documents. If the documents cannot be obtained, crop cannot be harvested for that crop cycle.
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5. Preharvest Agricultural Water

Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
5.1	The sources of water used in the greenhouse are documented.	The operation has an up-to-date map documenting the location of the sources and all permanent fixtures used to deliver crop-application water.	Auditor verifies that the map is accurate to the operation's water sources and fixtures.	Operation develops or updates the water source map.
5.2	The type of irrigation used (flood, drip, sprinkler overhead, others) is documented.	The operation notes the type of irrigation used for all crops.	Auditor verifies that the method of irrigation is noted.	Operation finds a place to note it.

5.3	A sanitary survey was completed for each water source.	Procedures ensure that any water source, storage and distribution system used is properly designed, located, constructed and maintained in such a way as to prevent contamination; i.e., backflow prevention, proper well construction, adequate maintenance of water system, protection against animal intrusion where practical, and protection from cross contamination from fertilizers, pesticides, etc.	Auditor reviews records and inspects the water source and distribution system to verify compliance.	Complete the survey and correct deficiencies.
5.4	Water tests are conducted.	One sample per water source shall be tested at the closest practical point of use, prior to and throughout the crop cycle, at a minimum according to the relative risk of the water source; e.g., annual testing of municipal water, wells and other sources that historically have demonstrated compliance with the microbial standard; monthly testing of treated surface water or sources that historically have demonstrated non-compliance with the microbial standard.	Auditor reviews water test results and any corrective actions taken to bring the water source into compliance.	Operation performs testing or obtains documentation of test results. If water does not meet standards, cease using the water source until corrected and confirmed by testing.
5.5	If water is treated to bring it into compliance, records are maintained of treatments and testing.	If water source is treated (e.g., chlorination, UV, ozone), details of the treatment and tests, at least daily while in use, to verify antimicrobial treatment levels are at effective and legal limits shall be documented.	Auditor reviews water treatment records	Operation performs testing and prepares documentation.

5.6	Non-Foliar The water test meets EPA recreational water standards for E. coli; i.e., 40 CFR Part 131.41(c).	Written procedure requires a BAM or other testing procedure validated for generic E. coli quantitation in water.	Auditor reviews water test results and any corrective actions taken to bring the water source into compliance.	Perform a sanitary survey for each affected water source, perform any remedial action as required and retest. If the retest also exceeds the standard, further evaluate potential corrective actions, such as treatment, retreatment, or discontinue use of source.
5.7	Foliar The water test meets EPA microbial standards for drinking water; i.e., 40 CFR Part 141.63.	Written procedure requires a BAM or other testing procedure validated for generic E. coli quantitation in water.	Auditor reviews water test results and any corrective actions taken to bring the water source into compliance. If tomatoes have been contacted with non-compliant water, auditor reviews the risk assessment and disposition.	Perform a sanitary survey for each affected water source, perform any remedial action as required and retest. If the retest also exceeds the standard, further evaluate potential corrective actions, such as treatment, retreatment, or discontinue use of source. Operation shall evaluate tomatoes that have been contacted with non-compliant water to assess food safety risk. The assessment is documented and tomatoes dispositioned accordingly.

6. Pest Control and Pesticide Usage

A. Pest Control in Facility

Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
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6.1	Operation has a written pest control program, performed by a trained pest control operator. Pest control operators are licensed where required by prevailing regulation or law.	Operation has a written program covering all locations of the operation where pest activity may pose a contamination risk (e.g., material storage areas), with up to date records. Program activities are performed at prescribed frequency.	Auditor reviews program, records and, where appropriate, copy of operator's license or qualifications. If there is no evidence of pest issues within the facility, auditor shall determine that the pest control program is adequate.	Program is developed or revised. Deficiencies in compliance with program are corrected; retraining is performed.
6.2	There is a clear area surrounding the facility to deter pest infestation.	Perimeter surrounding facility is maintained so as not to provide pest harborage. Operation has a policy regarding outside storage of equipment or other potential pest harborage.	Auditor reviews policy and observes perimeter outside of operation for pest harborages and pest infestation, and compliance with outside storage and perimeter policy.	Policy is developed or revised. Operation removes potential pest harborages. Non-compliances are corrected on site. Retraining is performed.
6.3	There is no evidence of significant pest populations (birds, rodents, insects) reasonably likely to contaminate tomatoes.	Operation monitors on ongoing basis for presence of pests that may pose contamination risks	Auditor observes facility and surrounding areas for significant pest populations and potential for product contamination.	Operation removes problem and establishes procedures to prevent recurrence or minimize risk
6.4	There are no bait stations containing toxic baits inside the facility.	Bait stations containing toxic baits shall all be outside greenhouse facilities and located where they are not reasonably likely to contaminate products or equipment.	Auditor verifies that bait stations are located and maintained in compliance with pest control program.	Program is developed or revised. Non-compliances are corrected on site. Retraining is performed.
6.5	Traps do not contain toxic bait and are placed at the interval and location recommended by the pest control operator. Traps must be labeled with a number or other identifier and their locations are documented on a map.	Only non-toxic baits are permitted in traps inside facilities. Trap intervals are defined in pest control program, and locations are identified on a facility map.	Auditor observes facilities for proper type, location and maintenance of traps, and evidence of pest control.	Program is developed or revised. Non-compliances are corrected on site. Retraining is performed.

6.6	Bug zappers and insect attractant devices, if used, are not placed in a location where product or food handling equipment or food packaging materials may become adulterated.	Insect electrocuters or attractants that may disperse insect fragments are not permitted in tomato growing and handling areas. This restriction does not apply to glue boards or other instruments that do not disperse insect fragments.	Auditor observes location of insect control devices for compliance with pest control program and the potential to contaminate product.	Program is developed or revised. Non-compliances are corrected on site. Retraining is performed.
6.7	Operation has a written policy prohibiting domestic animals in the greenhouse.	There is no evidence of domestic animals in the greenhouse.	Auditor observes operation for evidence of non-compliance.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.
B. Pesticide Usage				
Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
6.8	Pesticide chemicals and their use must comply with all requirements of national (e.g., EPA) registration and any federal, state or local regulations.	Pesticide chemicals used must comply with all requirements of EPA registration and any federal, state or local regulations. Pesticides must be appropriately registered for such use and must be used in accordance with label directions. Pesticide uses shall be documented. Pesticides shall be applied by trained, licensed or certified pesticide personnel, as required by regulation.	Auditor reviews pesticides used and application records.	Perform training on recordkeeping procedures, as needed. If unregistered pesticides are used, then the crop shall not be harvested.
6.9	Equipment used to apply pesticides shall be maintained and calibrated at a frequency sufficient to assure accuracy of delivery.	Maintenance and calibration records are maintained and, if calibration is not performed on-site, records made readily available for review.	Auditor reviews maintenance and calibration records to ensure they are up to date.	If equipment is out of calibration, or calibration is unknown, tomatoes shall be tested for pesticide residues to ensure compliance with current regulatory limits.

6.10	Water used to mix pesticides meets EPA microbial standards for drinking water; i.e., 40 CFR Part 141.63	Operation has a written policy requiring foliar-application pesticides be diluted only with water that meets microbial standards for drinking water. Operations will have documentation demonstrating compliance, such as test results for the water source used.	Auditor reviews the policy and inspects pesticide mixing and application records.	Operation develops a written policy. Retraining of pesticide applicator as needed. If unknown or non-drinking quality water was used to prepare pesticides, then test the water source for compliance with drinking water E. coli standards. Do not harvest product unless test results demonstrate compliance.
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7. Tomato or Equipment Sanitizing Agents Used During Harvest

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
7.1	All compounds used to clean or sanitize food contact containers, tools, utensils, equipment or other food contact surfaces are approved for that use by the US EPA, FDA or other prevailing agency. Actual use conforms to label directions.	Documentation is available to demonstrate that cleaning and sanitizing products are approved for their use, and are used according to label directions. Sanitizing chemicals uses shall be documented.	Auditors review documentation and supplies to confirm approved use, and interview individuals responsible for their use for knowledge of approved use. Auditor reviews records of use, and visually observes use, to verify compliance with label directions.	Non-compliances are corrected on-site. Records are reviewed for potential product adulteration. Retraining is performed.
7.2	Chemicals used on product that are not registered pesticides may be permitted for food contact use if allowed under regulations of the FDA or prevailing agency.	Any product contact chemicals not specifically approved as registered pesticides shall be identified, the authority permitting their use identified and their uses documented.	Auditors review documentation and supplies to confirm approved use, and interview individuals responsible for their use for knowledge of approved use. Auditor reviews records of use, and visually observes use, to verify compliance with label directions.	Non-compliances are corrected on-site. Records are reviewed for potential product adulteration. Retraining is performed.

7.3	All chemicals, cleaning compounds and solvents are stored in a secure and locked location.	Operation has a written policy for the storage and security of cleaning compounds and solvents.	Auditor reviews policy, observes the storage area and production area for evidence of compliance.	Policy is developed or revised. Secure, locked storage area is designated. Non-compliances are corrected on site. Retraining is performed.
8. Equipment, Containers and Packaging Materials				
Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
8.1	Harvest and other food contact implements, buckets and totes are clean and sanitized as necessary according to SOP.	Written SOP is established to ensure that buckets, totes and harvest containers and implements are adequately cleaned and sanitized prior to use and at a prescribed frequency (e.g., daily during use), or more frequently if needed, and documentation of compliance is maintained. If containers are nested during storage or transportation, external surfaces are also cleaned and sanitized.	Auditor reviews SOP, cleaning logs and records, interviews responsible individuals for knowledge of the SOP and observes employees for evidence of non-compliance.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.
8.2	Reusable containers and food contact equipment and utensils shall be constructed of impervious materials that can be easily cleaned and sanitized.	Written SOP requires that all reusable product containers are made of materials that can be sanitized, or clean and sanitary liners are used. Wood is not an appropriate food contact surface. Procedures require damaged containers that are no longer easily cleanable or sanitary shall be removed from service of food contact purposes.	Auditor reviews SOP, visually observes product bins, trays and containers and their use for evidence of non-compliance.	Policy is developed or revised. Non-compliances are corrected. Operation makes a commitment for phasing out non-conforming product containers; e.g., wooden bins, in a reasonable timeline. Retraining is performed.

8.3	All containers shall be marked for their intended use (finished produce containers, trash containers, etc.).	A system shall be in place to clearly identify bins, totes and containers to their intended use. Bins, totes and containers intended for the harvesting of product shall be used only for that purpose. Bins, totes and containers used for alternate purposes are clearly identified and not used for harvesting of product.	Auditor visually observes bins, totes and containers for evidence of non-compliance.	Use bins, totes and containers only for appropriate uses. Re-evaluate use identification procedure. Retraining is performed. Bins, totes and containers used inappropriately are identified for non-harvest use, or are cleaned and made sanitary before use, as appropriate.
8.4	Operation has a written procedure for inspecting incoming packaging material.	All packaging materials are inspected for evidence of contamination upon arrival. Results are recorded.	Auditor reviews procedure and examples of packaging and receiving records for compliance.	Operation creates or revises policy. Contaminated or adulterated packaging material is rejected or discarded. Retraining is performed.
8.5	Finished product containers are prohibited from direct contact with the floor, and pallets, slip sheets, and supports used to keep product containers off the floor are clean and in good condition.	Operation has a policy prohibiting finished product containers in direct contact with the floor, and that pallets, slip sheets, and supports used to keep product containers off the floor are maintained so as not to be a source of contamination.	Auditor reviews policy and examines finished product staging and storage areas and pallets, slip sheets, and supports for compliance with the policy.	Operation creates or revises policy. Non-compliances are corrected on site. Retraining is performed.
8.6	Bins, trays, and pallets shall be stored in a secure, clean location.	Locations are designated for bins, totes and trays to be staged and stored in a manner to minimize contamination and opportunity for pest harborage. Procedures are in place to inspect and clean and make sanitary bins, totes or trays, if contamination is observed.	Auditor observes locations for staging and storing of bins, totes and trays for compliance and evidence of overt contamination or pest activity.	Re-evaluate designated storage location to minimize contamination. Bins, totes and trays not in designated area are moved to designated area. Bins, totes and trays reasonably concluded to be contaminated are cleaned and made sanitary before use.

9. Cleaning and Washing Procedures				
A. Cleaning Materials Including Cloths				
Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
9.1	Operation shall have a policy that cloths, towels, or other cleaning materials shall not be used to wipe tomatoes.	Employees are trained that wiping tomatoes with cloths or other multiple use materials may pose a risk of cross-contamination and are prohibited.	Auditor reviews policy, interviews employees for knowledge of the policy and observes harvest area and employees for evidence of non-compliance.	Policy is developed or revised. Non-compliances are corrected on-site. Retraining is performed.
B. Product Wash Water Management				
Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
9.2	Only sanitizers or sanitizer systems registered or approved by EPA or the prevailing regulatory agency for their specific intended use may be used in the dump tank wash water, on the spray line or other food contact purposes.	Operation maintains a current list of approved products (e.g., sanitizers, acids, surfactants) that may contact tomatoes and are approved for food contact use in the facility.	Auditor reviews chemical list and observes inventory of water treatment chemicals for compliance. Auditor reviews labels or other manufacturer documents that demonstrate sanitizers being used are registered for the specific intended use.	Non-compliances are corrected on site. Unapproved chemicals are removed from use and replaced with approved chemicals. Procedures are developed or revised. Retraining is performed. If unapproved chemicals are used, or approved chemicals are used in an unapproved manner, operation shall assess potential for product adulteration. Tomatoes that have contacted sanitizer used in an unapproved manner are adulterated.

9.3	Wash water sanitizer is used in accordance with operational procedure, manufacturer instructions, and regulatory requirements. Records are kept.	Operation shall have a procedure and maintain records of any wash water sanitizer used (including pH adjustment chemicals, as needed) as well as how the use is controlled and monitored. Sanitizer levels should be monitored and recorded at least every 30 minutes, but shall not be less frequent than every 2 hours, during use, or as needed to assure continuous compliance with minimum limits. Operation shall have a procedure as to what corrective actions are taken if criteria are not met. Wash water sanitizer is not required in single-pass wash systems, but wash water must still meet EPA microbial standards for drinking water; i.e., 40 CFR Part 141.63	Auditor shall review the procedure and shall review records of sanitizer use, verification of treatment levels and monitoring records. Auditor reviews records for deviations and their disposition.	Procedure is developed or revised. Retraining is performed. Tomatoes exposed to sanitizer in excess of label limits are treated by an approved method to bring tomatoes into compliance or are discarded. Tomatoes exposed to sanitizer below established minimum limits shall be discarded back to the last evidence of compliance.
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9.4	In systems where tomatoes are submerged or dwell in water, water temperature is monitored and controlled. Water temperature should be at least 10°F above highest measured pulp temperature of tomatoes when entering the water. If operation can demonstrate retention times are never more than two minutes and water submersion does not exceed 1 ft, water temperature shall be controlled to be not be less than highest measured pulp temperature.	Operation shall have methods for determining pulp temperature, a procedure for control of water temperature, shall monitor temperature at a prescribed frequency sufficient to assure continuous compliance and shall maintain records of water temperature. If water is maintained at less than 10°F above pulp temperatures, the operation will maintain records substantiating that dwell time and depth standards have been met, and tomatoes have not been washed in water at temperatures less than the highest measured pulp temperature. Operation shall have a procedure as to what corrective actions are taken if criteria are not met. Water spray or shower systems, wherein tomatoes are not submerged or dwell do not require temperature control.	Auditor shall review the procedure and shall review records of temperature monitoring. Auditor observes process including the operation's sampling of pulp and water temperatures. Auditor reviews records for deviations and their disposition.	Procedure is developed or revised. Retraining is performed. Tomatoes washed in water at temperatures less than the highest measured pulp temperature shall be discarded back to the last evidence of compliance.
9.5	Operations utilizing spray systems in place of whole tomato immersion shall design the line so that the entire tomato surface is rinsed.	Spray systems shall be designed such that rinse water contacts all surfaces of the tomato.	Auditor observes spray system for compliance.	Equipment or process is redesigned or retrofitted to ensure all surfaces of tomato are contacted.
9.6	Re-circulated and re-used water is changed at least daily, and records of changes are kept.	Operation shall maintain records to demonstrate water changes. Water may be used for longer than daily if a validated regeneration system (e.g., a water pasteurization/filtration system) is being used.	Auditor reviews records to verify at least daily changes of all wash water.	Procedure is developed or revised. Retraining is performed.

9.7	If water quality is based upon a chlorine-based sanitizer and Oxidation Reduction Potential (ORP), the process shall be targeted to be at least 800 mV. ORP levels shall not be less than 650 mV, measured at the exit of the product from the water system, unless validation data are available to demonstrate a lower ORP is effective under operating conditions.	Operation shall have a procedure to manage ORP levels, shall establish process adjustments for when the ORP drops below 800 mV, and shall maintain records to verify proper management of levels.	Auditor shall review the procedure and shall review records of ORP measurement and appropriate management. Auditor reviews records for deviations and their disposition.	Procedure is developed or revised. Retraining is performed. Tomatoes washed in water at ORP less than 650 mV shall be discarded back to the last evidence of compliance.
9.8	If an ORP system is used, an independent measurement is used to verify compliance.	Operation shall have a procedure and shall maintain records to measure ORP by a secondary method to ensure primary measurement is accurate.	Auditor shall review the procedure and shall review records of secondary ORP measurement.	Procedure is developed or revised. Retraining is performed.
9.9	If water quality is based upon an aqueous chlorine dioxide sanitizer, chlorine dioxide levels shall not be less than 1 ppm, measured at the exit of the product from the water system, unless validation data are available to demonstrate a lower level is effective under operating conditions.	Operation shall have a procedure to manage aqueous chlorine dioxide levels, shall establish process targets so as not to drop below the minimum ppm, shall establish adjustments for when the chlorine dioxide drops below the target ppm, and shall maintain records to verify proper management of levels. If ORP is used to monitor a chlorine dioxide-based system, the system shall be targeted to at least 650 mV, and shall not operate at less than 600 mV, unless a lower value has been validated as effective.	Auditor shall review the procedure and shall review records of aqueous chlorine dioxide measurement and appropriate management. Auditor reviews records for deviations and their disposition.	Procedure is developed or revised. Retraining is performed. Tomatoes washed in water at less than 1 ppm aqueous chlorine dioxide or 600 mV ORP shall be discarded back to the last evidence of compliance.

9.10	If water quality is based upon a peroxyacetic, peracetic or peracid system, levels shall not be less than 30 ppm, measured at the exit of the product from the water system, unless validation data are available to demonstrate a lower level is effective under operating conditions.	Operation shall have a procedure to manage peracid levels, shall establish process targets so as not to drop below the minimum ppm, shall establish adjustments for when the peracid level drops below the target ppm, and shall maintain records to verify proper management of levels.	Auditor shall review the procedure and shall review records of peracetic measurement and appropriate management. Auditor reviews records for deviations and their disposition.	Procedure is developed or revised. Retraining is performed. Tomatoes washed in water at less than 30 ppm peracetic shall be discarded back to the last evidence of compliance.
9.11	If a sanitizer system other than aqueous chlorine dioxide, peracid, or hypochlorous and ORP is used, the system shall be operated and controlled to levels of equivalent efficacy of pathogen cross-contamination control in tomato wash systems.	Operation shall have a procedure to manage sanitizer levels, shall have established target and minimum levels, shall establish process adjustments for when the sanitizer level drops below target level, shall establish procedures to independently verify measurements of sanitizer and shall maintain records to verify proper management of levels.	Auditor shall review the procedure and shall review records of sanitizer measurement and appropriate management. Auditor reviews records for deviations and their disposition.	Procedure is developed or revised. Retraining is performed. Tomatoes washed in water at sanitizer levels less than established minimum shall be discarded back to the last evidence of compliance.
9.12	All instruments used to measure temperature, pH, sanitizer levels and/ or other important devices used to monitor requirements in this section shall be calibrated at a frequency sufficient to assure continuous accuracy.	Operation has procedures to calibrate thermometers and other measuring devices at the manufacturer's recommended frequency, or more often as needed. Operation shall maintain records of all calibrations.	Auditor shall review the procedure and the records of calibration of each device used in monitoring the system. Auditor verifies that measuring instruments in use are within established calibration period.	Procedure is developed or revised. Retraining is performed. Instruments out of calibration shall be recalibrated or replaced. Tomatoes handled while instruments are out of calibration shall be assessed for food safety risk and dispositioned appropriately.

9.13	Instruments, test methods or test strips used to monitor requirements shall be appropriate to their use and sufficiently sensitive to their intended purpose.	Operation shall use appropriate instruments or test methods to monitor or verify sanitizer concentration, pH and other analytical measurements as required in this section. Test strips shall have sufficient resolution relative to the operating and corrective action limits to assure accurate determination of compliance.	Auditor shall reviews methods for the use of instruments, test methods and test strips and interviews employees using these instruments, methods and test strips to verify knowledge of their use. Auditor verifies test strips have not exceeded their expiration date.	Procedures are developed or revised. Appropriate analytical tools are obtained. Retraining is performed. Tomatoes handled while instruments have not been used appropriately shall be assessed for food safety risk and dispositioned appropriately.
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10. Transportation

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
10.1	Shipping unit is clean, functional and free of objectionable odors before loading. A responsible individual signs the completed checklist.	Operation has a procedure and checklist to verify cleanliness and functionality of shipping units (e.g., trailer). The procedure requires that personnel responsible for loading and unloading of produce inspect the vehicle before loading and after unloading for cleanliness, odors, obvious dirt, debris, fecal material or pest activity that may serve as a source of microbial contamination. Results of these inspections, and any corrective actions, are documented.	Auditor reviews procedure, past and current records for evidence of compliance, and observes performance of shipping unit inspection.	Procedures are developed or revised. Retraining is performed.

10.2	Vehicles and containers used to transport produce shall not be used to transport trash, animal carcasses or raw animal products that may be a source of microbial contamination unless cleaned and sanitized by a procedure sufficient to ensure that microbial contamination of produce does not occur.	Checklist includes prohibition of animal or animal product transport, or other materials that may be a source of contamination with pathogens. Unless dedicated vehicles are used, procedure requires transport history for immediate past 3 loads, or that trailer must first be cleaned and sanitized and accompanied by a wash ticket.	Auditor reviews checklist and recent shipping records for evidence of compliance.	Procedures are developed or revised. Retraining is performed.
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11. Employee Hygiene Policies and Employee Training

A. Toilet Facilities

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
11.1	Clean and sanitary toilet facilities are provided for all employees and toilets are made from cleanable materials and are cleaned and sanitized daily or sufficiently often to be maintained in a clean and sanitary manner.	Written SOPs and logs that the sanitary facilities are maintained at a frequency appropriate to the operation and the level of use. Records shall provide sufficient information to document that the SOP is being followed, including the recent dates of service.	Auditor reviews service records for compliance with the SOP and visually observes the condition of the facilities.	Non-compliances are corrected on site. Operation develops a written procedure and provides training.
11.2	The number of toilet facilities meets state and federal requirements.	The operation will have verification that the number of toilet facilities meets the prevailing standard. The relevant OSHA regulation: 29 CFR part 1928.110, specifies one gender-specific toilet facility per 20 employees	Auditor verifies that the number of available toilet facilities is compliant for the number of employees.	Operation obtains a sufficient number of toilet facilities to be compliant.

11.3	Toilets are located within a five minute walk of work areas.	Toilet facilities shall be easily accessible.	Auditor visually verifies that the toilet facilities are located at an appropriate distance from employees.	Toilet facilities shall be moved to a compliant location.
11.4	Restrooms should not open directly into greenhouse production areas.	Restrooms that do open directly into greenhouse production areas shall be equipped with self-closing mechanisms or have a maze-type entrance/exit.	Auditor visually verifies that the toilet facilities are located and designed in a compliant manner.	Operation retrofits or relocates the toilet facility.
11.5	All toilet facilities contain toilet paper.	Toilet facilities shall be stocked with toilet paper, positioned and stored in a sanitary manner. Toilet facility servicing shall be sufficiently frequent to assure compliance.	Auditor verifies toilet facilities are equipped with toilet paper positioned in a compliant manner.	Responsible party restocks the toilet facility with toilet paper.
11.6	There is a program for the sanitary disposal of used toilet paper.	Training programs shall include procedures for sanitary disposal of used toilet paper, in a manner compliant with prevailing standards.	Auditor verifies the training program and observes the toilet facilities for evidence of non-compliance.	Non-compliances are corrected on site. Retraining is performed.
11.7	Hand washing facilities, with soap, water and disposable hand-drying towels, or air blowers, and refuse containers are provided.	Hand washing facilities must be sufficient in number so as not to be limiting for the number of employees, easily accessible and adequately stocked. Water for handwashing shall meet the microbial standard for potable water (including hot water where available). Refuse receptacles are constructed and maintained in a manner that protects against contamination of tomatoes.	Auditor visually observes the hand washing facilities for compliance.	Restock and maintain, or provide, to compliance.
11.8	If permanent handwashing facilities are not used, gray water is captured and disposed of away from tomato handling areas.	Waste water from hand washing facilities shall be captured and disposed in a manner so as not to become a source of contamination.	Auditor visually verifies that hand washing facilities have adequate mechanism for capture and disposal.	Hand washing facility shall be repaired, redesigned or replaced to compliance.

11.9	If portable hand wash water tanks are used, they are cleaned and sanitized and the water is changed periodically.	Water tanks used to provide hand wash water shall be maintained at a prescribed frequency in a clean and sanitary manner.	Auditor reviews cleaning and sanitizing protocol and service logs, and visually observes condition of water tanks for signs of non-compliance.	Clean and sanitize the tank, replace water to compliance.
11.10	The source of water used to fill hand washing tanks meets the microbial standard for potable water and is documented.	Water used for hand washing tanks is from a source that meets microbial standards for potable water (40 CFR Part 141.63), or has been treated to be compliant. Documentation of the quality of the source is maintained.	Auditor reviews documentation of water quality.	Replace water source or treat to achieve compliance. Obtain documentation demonstrating compliance.
11.11	Toilet and hand washing facilities are inspected by a designated individual at a sufficient frequency during use to assure cleanliness, condition and adequate supplies.	The operation designates a trained individual to routinely inspect the toilet and hand washing facilities for compliance. Records are maintained.	Auditor reviews inspection records and interviews the designated individuals for knowledge.	Retrain or replace the designated individuals.

B. First Aid Policies

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
11.12	There is a written policy describing procedures which specify handling/disposition of produce or treatment of food contact surfaces that have come into contact with blood or other bodily fluids	A written policy or procedure shall require designation and disposal of any produce and cleaning/sanitization of food contact surfaces that may have come into contact with blood or other bodily fluids.	Auditor verifies existence of the policy and interviews the responsible person for knowledge.	Operation prepares or edits the policy. Retrain or replace the responsible person.

11.13	There is a written policy instructing workers to seek prompt treatment for cuts, abrasions and other injuries and first aid supplies are provided.	Written policies and training programs shall require employees to report and seek treatment for cuts, abrasions and other injuries. Operation shall have and provide adequate first aid supplies.	Auditor verifies existence of the policy, training program and observes the first aid supplies. Auditor questions employees for knowledge of policy and observes employees for evidence of non-compliance.	Policy or training program is developed or revised. Non-compliances are corrected on site. Retraining is performed.
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C. Habits and Conditions

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
11.14	There is a written Hygiene Practices policy including, but not limited to, policies and procedures on hand washing, toilet use, and requiring handwashing at beginning of shift and prior to returning to production line, for all employees and visitors.	A written Hygiene Practices policy shall apply to employees, outside contractors, inspectors, and visitors.	Auditor verifies existence of the policy, questions employees for knowledge of policy, and observes employees and visitors for evidence of non-compliance.	Policy or training program is developed or revised. Non-compliances are corrected on site. Retraining is performed.

11.15	Policies shall require hand washing with soap and potable water at the appropriate time, such as before starting work, after use of toilet facilities, after breaks and when hands may have become contaminated. Policy shall apply to employees, outside contractors, inspectors, and visitors. Compliance is emphasized by management.	Operation shall have a written SOP regarding hand washing practices. Operation management reinforces importance of and compliance with handwashing policy. Sanitizers may not be used in lieu of soap and water hand washing, but may be used to supplement. If gloves are used when contacting tomatoes or food contact surfaces, policies will clearly communicate that gloves are not a replacement for good handwashing practices.	Auditor observes handwashing practices of employees and visitors for compliance. If handwashing practices are observed to be compliant, auditor will judge management emphasis to be sufficient.	SOP is developed or revised. Retraining is performed. Management increases frequency of or approach to reinforcing hand washing policy.
11.16	There are signs, either in the appropriate language or pictorially, reminding workers to wash their hands after using the toilet.	Easily understandable hand washing signs are posted near all handwashing and toilet facilities.	Auditor visually verifies placement and content of signs.	Appropriate signage is posted.

11.17	If gloves are used, there must be a written SOP regarding their use.	If gloves are used for product or food contact purposes, operation shall have a written policy and SOP regarding their use, maintenance and disposal, including cleaning of reusable gloves, not taking gloves into restrooms or eating areas, replacing gloves that may be damaged or have become a source of contamination. . The SOP should also address limitations of use of non-sanitary gloves (i.e., work gloves). The SOP will require that reusable gloves shall not be taken home by workers for cleaning and sanitizing, and the operation shall be responsible to ensure that reusable gloves are washed in water over 140°F and sanitized daily by a validated procedure.	If gloves are used, auditor reviews the SOP, records of SOP performance, and visually verifies that glove use is consistent with the SOP; i.e., gloves at the beginning of tomato handling activities are clean and not damaged; workers are observed to not take gloves into restrooms or eating areas; and that gloves are not taken into restrooms or eating areas.	SOP is developed or revised. Non-compliances are corrected on site. Retraining is performed.
11.18	Operation shall have a written policy regarding employees' outer garments.	Policy includes that employees shall wear suitable outer garments, not reasonably likely to serve as a source of contamination of tomato or food contact surface, and, as appropriate to the operation, use of plastic aprons and sleeves, and empty pockets above the waist. Outer garments shall be changed after cleaning drains, restrooms or other activities that may result in contamination.	Auditor reviews the policy, observes employees for compliance and interviews employees for knowledge of the policy.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.

11.19	SOPs establishing the operation's illness policy provide that workers who show signs of illness (vomiting, jaundice, diarrhea) or open or exposed sores or lesions on their hands are not permitted to perform job duties where they will come in direct contact with raw product or food contact surfaces.	SOPs and documented employee training at least annually to report any active case of illness that may be transmissible by food, open sores or lesions to their supervisor, and that such employees are not permitted to work directly with food or food contact surfaces.	Auditor reviews the policy, reviews training records, interviews employees for knowledge of the policy and observes employees for evidence of non-compliance.	The policy and training are created or amended to be compliant. Retraining is performed and documented.
11.20	There is a written policy regarding the use of hair restraints.	Policy exists regarding the use of hair restraints by all employees and visitors in greenhouse. Operation provides hair restraints to all employees and visitors, as appropriate to policy.	Auditor reviews policy and visually observes compliance.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.
11.21	There is a written policy regarding jewelry, nail polish and false nails in the workplace	Operation has a policy on acceptable and prohibited jewelry in the greenhouse. The policy shall restrict use of nail polish or false nails,	Auditor reviews policy and visually observes compliance.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.
11.22	Food and tobacco products are only in designated areas as specified in company SOP.	Operation has a written policy prohibiting food and tobacco products except in designated areas.	Auditor verifies existence of the policy, questions employees for knowledge of policy, and observes employees and visitors for evidence of non-compliance.	Policy or training program is developed or revised. Non-compliances are corrected on site. Retraining is performed.

11.23	Drinking water shall be provided in fountains or single use containers. Drinking water containers shall be handled in a manner that prevents them from becoming sources of contamination.	Operation has a written policy regarding drinking water, and water cups, containers or fountains that are clean and sanitary, and handled in a manner that prevents them from becoming sources of contamination	Auditor observes that drinking water containers are handled in a manner that prevents them from becoming sources of contamination.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.
11.24	There is a written policy prohibiting the storage and use of personal items outside of designated areas.	Operation has a policy to permit employee personal items (e.g. employee lunches, drinks, clothing) only in designated, non-production and non-product storage areas.	Auditor reviews policy and visually observes compliance.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.

12. Education and Training

Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
12.1	Employees shall receive mandatory safe product handling and personal hygiene education at time of hire with reinforcements as detailed in company SOP.	Operation shall have a written SOP that outlines topics to be covered in training, with reference to authoritative sources of training information; dates, names and signatures of trainees; and prescribed frequencies of training, to be at least annually.	Auditor reviews SOP and training logs, interviews employees for knowledge of the training and observes employees for evidence of non-compliance.	Policy is developed or revised. Non-compliances are corrected on site. Retraining is performed.
12.2	Individuals shall be trained on all food safety requirements specific to their assigned duties.	Training programs shall be inclusive of all individuals' assigned responsibilities and operational requirements. Training records are available.	Auditor reviews training program and logs, interviews employees for knowledge of the training and observes employees for evidence of insufficient training for assigned duties.	Policy is developed or revised. Retraining is performed.

12.3	Workers are trained and follow the policy that product dropped on the floor is discarded.	Employees are trained that open or uncased product that has fallen to the floor shall be discarded.	Auditor reviews policy, performance criteria and training logs, interviews employees for knowledge of the training and observes production areas and employees for evidence of non-compliance.	Training program is revised. Retraining is performed.
12.4	Supervisors are trained to look for, recognize and react to symptoms of potentially infectious illness.	Supervisors are trained to look for and recognize symptoms such as diarrhea, vomiting or other signs of potentially infectious illness, and appropriate actions to be taken.	Auditor reviews training programs, training logs, and interviews supervisors for knowledge of illness symptoms and appropriate actions.	Training program is revised. Retraining is performed.

13. Record Keeping and Traceability

A. Greenhouse Packing

Item#	Requirement	Procedure	Verification	Corrective Action/ Disposition
13.1	Documentation of greenhouse packed tomatoes shall include sufficient information about the growing and harvest of each lot (i.e. greenhouse location and history, grower, personnel/crew involved in the harvesting and packing) as well as the customer receiving the product to allow for the appropriate tracing of product.	Operation has policy that addresses record keeping of source of seed or transplants, soil inputs, irrigation water sources and test records, names of crews involved in greenhouse operations, and other crop history information relevant to product safety. Records are retained for at least two years or as required by prevailing regulation.	Auditor reviews policy and reviews records for compliance.	Policy is developed or revised. Non-compliances are corrected on-site. Retraining is performed.

13.2	Containers shall be accurately labeled with commodity name, greenhouse firm name and information sufficient to allow for source and lot identification.	A product coding system is in place where product shall be labeled with grower and lot identification, and coded to enable access to date of harvest and/or packing, origin (name of greenhouse, grower and/or packing location), and country of origin for traceback purposes. If using reusable containers, procedures ensure that labels are accurate prior to packing.	Auditor reviews coding procedures, observes cases for appropriate coding, and verifies compliance by review of records.	Boxes with missing, inaccurate or illegible coding are labeled with appropriate identification. Procedure is developed or revised. Retraining is performed.
13.3	Documentation maintained for each lot shipped shall include sufficient information about the customer receiving the product to allow for the appropriate tracing of product.	Operation shall maintain lot identification records that include product description, customer's identity and location, transporter's identity and location, product lot numbers, country of origin, quantity, pack size and date shipped.	Auditor reviews the procedure and shipping documents to verify compliance.	Procedure is developed or revised. Retraining is performed.

B. Packinghouse Packed Greenhouse Tomatoes

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
13.4	The greenhouse shall maintain supply chain information available to the packinghouse to facilitate accurate traceability; i.e., quantity, greenhouse identification and date of harvest/pack.	Operation has procedures to retain and provide to the packinghouse records of source of seed or transplants, soil inputs, irrigation water sources and test records, names of crews involved in greenhouse operations, and other crop history information relevant to product safety. Records are retained for at least two years or as required by prevailing regulation.	Auditor reviews policy and reviews records for compliance.	Policy is developed or revised. Non-compliances are corrected on-site. Retraining is performed.

C. Other

Item#	Requirement	Procedure	Verification	Corrective Action/Disposition
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13.5	There are written product tracing and recall procedures.	Operation has developed a written crisis management and recall action plan, including designation of recall team and responsibilities, flow chart of the recall process, plan for product recovery and disposition.	Auditor reviews the traceback and recall procedures for completeness, accuracy.	Procedure is developed or revised. Retraining is performed.
13.6	Operation routinely tests the product tracing procedures.	Operation shall have a procedure and maintain records to identify all outgoing product lots and shipments with all component tomato lots, in both traceback and trace forward directions, to achieve 100% reconciliation of shipped product within 2 hours. Operation shall perform and document a trace exercise at least annually. This may be performed during the audit or during a mock recall.	Auditor asks operation to traceback one, auditor-selected product lot to all supplier lots, and trace forward one supplier lot to all product lots and shipments. Auditor verifies operation capability to reconcile 100% of shipped product lot within 2 hrs. Auditor requests records to support either the traceback or trace forward, and verifies accessibility within 2 hours.	Procedure is developed or revised. Retraining is performed. Test is repeated until operation passes.
13.7	A successful mock recall test has been performed in the last 12 months.	Operation shall test all recall procedures, in a mock process, at least annually.	Auditor reviews records of the most recent mock recall.	Procedures are developed or revised. Retraining is performed.