

# RPA Guidelines and Best Practices for the Safe Use of Returnable Containers in Food Supply Chains





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## Introduction

The FDA “Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables,” was released in 1998 and revisited in 2008. While it predominantly outlines Good Agricultural Practices known as GAPs, the general food safety guidance is related and extremely useful in a wash operation designed to wash, rinse and sanitize Reusable Plastic Containers, or RPCs. Because RPCs predominantly transport fresh fruits and vegetables, the sections regarding transportation, cooling, packing and storage of fresh produce are especially relevant.

The RPC wash process also follows Good Manufacturing Practices, or GMPs. These are designed closely with chapters 4, 5 and 6 of the 2013 FDA model Food Code. These GMPs cover equipment, utensils, water, plumbing, waste and physical facilities. When combined with proper employee hygiene and food defense practices, these GMPs form the core of a RPC wash operation.

This guidance document was created by the Reusable Packaging Association to help ensure that these best practices are followed throughout the supply chain and by all industry participants. This will serve as a concerted effort between all users within the supply chain. To achieve this goal, RPA formed a committee in January 2014 consisting of members from retailers, grower shippers, manufacturers, industry associations and RPC providers who gathered to work together in an effort to design and agree upon a number of best practices that will align the RPC industry under the goal of food safety, which is inclusive of ensuring biosecurity throughout the supply chain.

In the past, GMPs and the principles of Hazard Analysis Critical Control Point (HACCP) programs have been adequate. However, as RPCs have continued to become more prevalent in the supply chain, and their use has continued to grow significantly every year, a greater understanding of what is required from each member of the supply chain has become necessary. It was clear when originally creating this RPC Food Safety Committee that all RPC users have a role to play for the safe and efficient use and growth of RPCs.

## Scope

The scope of this document encompasses the handling and use of RPCs within various points in the supply chain including: washing, handling, storage, packing, displaying and recollecting.



While it broadly covers RPC use throughout the supply chain, it also addresses fresh fruits and vegetables, fresh meat and eggs and other perishables predominantly shipped in RPCs.

Safe RPCs depend upon many factors; most importantly, the diligent efforts and food safety commitment of many parties throughout the distribution chain. No single resource document can anticipate all food safety issues or provide answers to all food safety questions. This guidance document focuses on best practices that contribute to the safest possible RPCs for use in fresh and perishable products.

It is the intention of this document to encourage all companies involved in RPC use in the supply chain to implement the recommendations and guidelines in order to encourage safe production and handling of perishable foods in RPCs. In addition, all other opportunities to provide food safety education to all supply chain partners should be made. Together with a commitment to implement these guidelines and provide continuing food safety education, the RPC industry and its users are helping to do their part to ensure consistently clean and safe RPCs.

These guidelines are intended to be suggested best practices associated with the RPC industry. All the contributors and reviewers ensure no claims or warranties about any actions contained herein. It is the responsibility of the readers of this document and the RPC providers and their customers to maintain strict compliance with all local, state and federal laws, rules and regulations. While these guidelines are designed to facilitate the development of RPC best practices, they do not certify compliance to regulatory laws. Users of this document must understand that knowledge regarding food safety changes. Continuous improvements must be made to both this document and policies and procedures employed by the RPC industry and its users.

## Purpose

The issues identified in this guidance document are intended for the RPC industry providers and their users within the fresh food supply chain. It is the intention of the authors and participants of the committee responsible for this document that if the recommendations are effectively implemented, it would represent the best practices for use of RPCs within all segments of the fresh food supply chain.

The RPA would like to thank the following contributors for their leadership in this effort:

- Iris Bitterlich, BC Greenhouse Grower's Association
- Mike Reed, BC Hothouse
- Jane Proctor, Canadian Produce Marketing Association
- Anne Fowlie, Canadian Horticultural Council



- Blane Seley, Dole
- Paul Forsythe, DRG Tech
- Phil Smith, Label and Barcode
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- Paul Pederson, IFCO (Chair)
- Joseph Pham, Polymer Logistics
- Carl Glick, Polymer Logistics
- Danny Bartal, Polymer Logistics
- Greg Gorski, Tosca Ltd.
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- Tim Hoffman, XtremeRFID



## 1. Issue: Maintenance and Surveillance of Food Safety

Maintenance for food safety programs creates the foundation of effective mitigation of food safety risk and the associated hazards. Without them, all other activities to safeguard our product would fall short. The Reusable Packaging Association (RPA) has developed the following prerequisite programs to guide our businesses and act as the foundation of our industry's food safety program.

### 1.1 THE BEST PRACTICES ARE:

#### 1.1.1 Adopting Good Manufacturing Practices (GMPs)

- 1.1.1.1 RPA prerequisite programs are the practices and conditions followed immediately prior to and during the implementation of a company adopted HACCP program designed to ensure food safety of RPCs or other food contact containers.
- 1.1.1.2 These prerequisite programs provide the foundation for our HACCP and quality programs, and they help reduce the likelihood of biological, chemical and physical hazards.

#### 1.1.2 Implementing a good microbiology surveillance program

- 1.1.2.1 The RPA guideline suggests the adoption of a comprehensive microbiological testing regime that covers both human and plant pathogens in all aspects.
- 1.1.2.2 The wash process including environmental, surface, pre-operational, and finished product testing should be considered.
- 1.1.2.3 Operational limits and key thresholds follow those previously published by the USDA FSIS and the National Agricultural Library.
- 1.1.2.4 Indicator species and tests measuring general microbiological activity should be reserved for direct product testing. Aerobic Plate or Total Plate Count (APC/TPC) tests are recommended.
- 1.1.2.5 Pathogen testing on product itself should only be conducted after an established test and hold program is in place. Proper notification to authorities and recall processes must be followed in the case of presumptive positive or positive results.

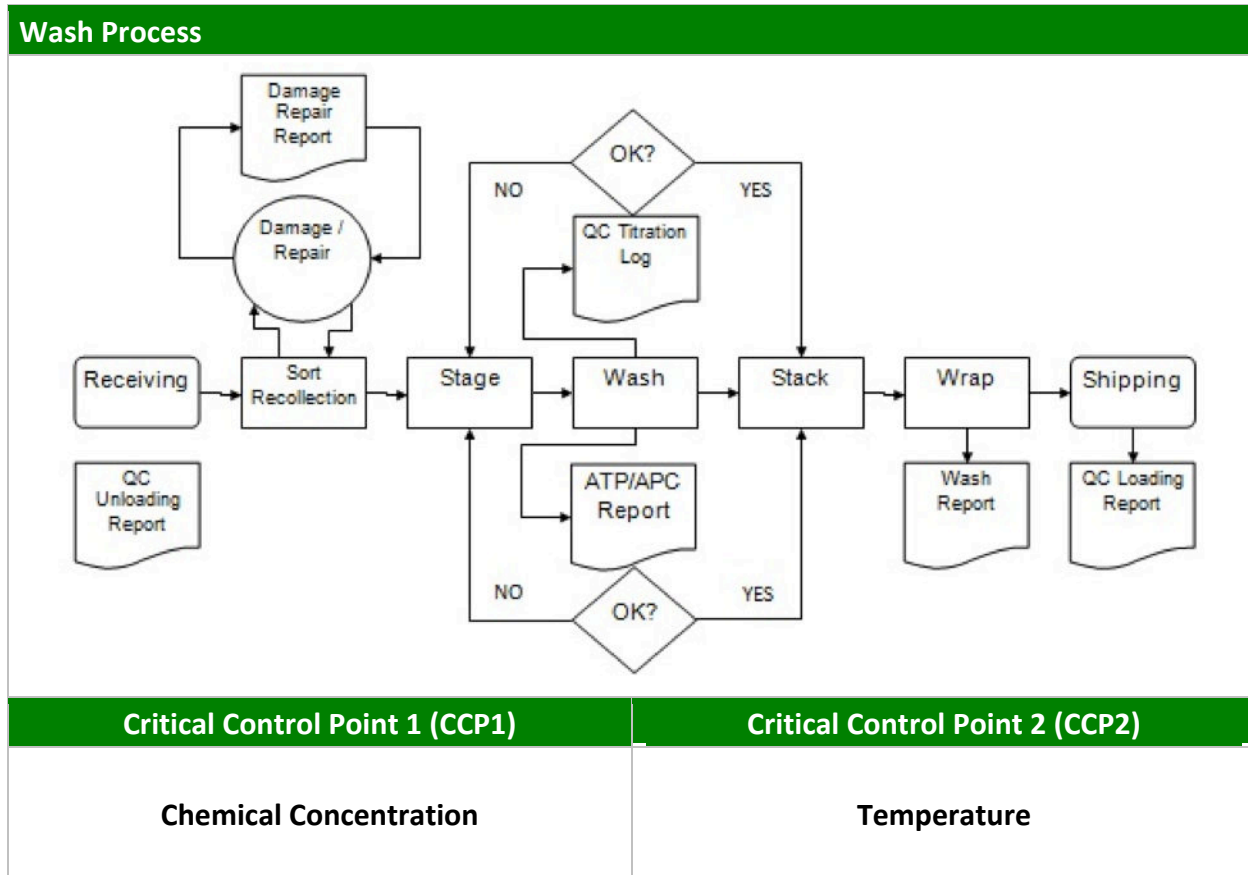
#### 1.1.3 Having a strict Chemical Control Program (CCP)



- 1.1.3.1 In the sanitation and wash process, detergents and sanitizers should be digitally dosed and controlled. Manual injection and monitoring systems are not robust enough to ensure compliance in a continuous in-line wash operation.
- 1.1.3.2 Thresholds and parts per million (ppm) should strictly follow USDA guidelines for food and food contact materials, as well as manufacturer suggested guidelines for maximum efficacy of chemical performance.
- 1.1.3.3 Redundant electronic and manual processes should ensure these parameters are always correct. Manual processes are an acceptable backup and additional check on electronic surveillance programs.
- 1.1.4 Maintaining and being trained on the company's HACCP program**
  - 1.1.4.1 HACCP is a science-based system used to ensure that food safety hazards are controlled to prevent unsafe food and food contact packaging from reaching the consumer. Both CFIA/FDA have an Advance Notice of Proposed Rule Making (ANPRM) published for HACCP for industries like RPCs.
  - 1.1.4.2 A universal HACCP program for RPC packaging follows the USDA and International HACCP Alliance requirements as closely as possible and should be harmonized with the current recommendations of the National Advisory Committee on Microbiological Criteria for Foods (NACMCF).
  - 1.1.4.3 The RPA recommended HACCP program is the management system used to address the control of biological, chemical, and physical hazards from the production process.
  - 1.1.4.4 This program encompasses every aspect of a company's operation including production, procurement and handling, manufacture, and distribution of finished product. See Table 1.
  - 1.1.4.5 It is further recommended that companies maintain a trained and qualified individual to monitor compliance with the company's HACCP program.
  - 1.1.4.6 Certified HACCP coordinators should be educated through professional and certified programs through the International HACCP Alliance.



**Table 1: HACCP for RPC**



### 1.1.5 Maintaining an External & Internal Auditing Program

- 1.1.5.1 RPC Providers should contract with an independent auditing firm that meets or exceeds the qualification guidelines described in ISO 19011:2002. These audits should be conducted by a certified GSFI recognized scheme.
- 1.1.5.2 Internally, RPC Providers should conduct monthly self-assessment audits modeled after the SQFI code modules 2 and 13. Internal audits are designed as preparation for certified audits as well offer regular opportunities to pinpoint deficiencies and initiate corrective action.
- 1.1.5.3 The complete system adopted should follow HACCP principles and be GSFI compliant. It should be verified independently through 3rd party audits on an annual basis (or as necessary). See Table 2.





**Table 2: 3<sup>rd</sup> Party Auditing Programs**

Internal – GMP Audit	External – GFSI Audit
<p><b>Monthly Audit Coverage:</b></p> <ul style="list-style-type: none"> <li>• <i>Operational Methods and Personnel Practices</i></li> <li>• <i>Maintenance for Food Safety</i></li> <li>• <i>Cleaning Practices</i></li> <li>• <i>Integrated Pest Management</i></li> <li>• <i>Adequacy of Prerequisite &amp; Food Safety Programs</i></li> </ul>	<p><b>Annual Audit Coverage:</b></p> <ul style="list-style-type: none"> <li>• <i>Site Requirements, Construction, Product Handling and Storage Areas</i></li> <li>• <i>Personnel Practices, Hygiene and Welfare</i></li> <li>• <i>Water/Air Supply, Storage and Transport</i></li> <li>• <i>Foreign Matter Control and Waste Disposal</i></li> </ul>

### **1.1.6 Incorporating surveillance programs and documentation**

1.1.6.1 To ensure the policies and procedures of a RPC provider's program are met at all times, several surveillance programs and documentation requirements are needed. These provide the verification data and the validation.

1.1.6.2 Processes needed to maintain the quality and food safety include:

- QC Process
- Systems Check Log
- Chemical Titration Log
- Surface Swab Tests
- Process Validation
- Preoperational Environmental Inspection Release

1.1.6.3 An effective food safety surveillance program will rigorously test and challenge the current processes and practices used to wash, rinse and sanitize RPCs. The program will operate under a frequency that can effectively cover a statistically significant sample size representative of the entire production as possible. Surveillance should be done:

- Hourly
- Daily
- Monthly
- Quarterly

1.1.6.4 Follow the USDA protocol for testing for pathogens: test the environment for pathogens and the process and product for indicator organisms. Do this daily, weekly and monthly.



### **1.1.7 Undergoing and obtaining the required training and certifications**

- 1.1.7.1 RPA believes in the power of training and employee empowerment. To that end, it is recommended that every general manager of a facility is trained and certified through an internationally recognized food safety certification body. There are many to choose from. ServSafe, National Registry of Food Safety Professionals (NRFSP) or similar level training programs are excellent at training Certified Food Safety Managers.
- 1.1.7.2 In addition, production floor employees should undergo monthly, quarterly and annual fundamentals of food safety training in areas including food safety, biosecurity, food defense, HACCP, hygiene, health and safety, and chemical safety.

### **1.1.8 Having an integrated pest management control system**

- 1.1.8.1 This includes pest control, fumigation, pesticide usage, and pest activity trend analysis.
- 1.1.8.2 A true 3<sup>rd</sup> party expert partner is critical to an effective IPM.
- 1.1.8.3 Process segregation and clearly delineated clean/dirty product storage practices are critical in successful IPM management.



## 2 Issue: Food Defense

An effective food defense plan will contribute to a safer and more secure food supply. Proper food defense will protect public health. A functional food defense plan can also help reduce the risk of unsafe product and other helpful business benefits. As members of the fresh food supply chain, RPC providers are a critical food defense contributor.

### 2.1 THE BEST PRACTICES ARE:

#### 2.1.1 Maintaining effective outside security

- 2.1.1.1 To prevent unauthorized access by people intent on adulteration or intent upon introducing unapproved materials to a facility, both physical security as well as shipping security should be adopted.
- 2.1.1.2 Fences, entry locks, controlled access and visitor policies help secure the physical facility.

#### 2.1.2 Maintaining effective shipping security

- 2.1.2.1 Load seals, trailer inspections and loading/unloading activities are monitored and controlled to ensure tampering is avoided and unauthorized access to finished product is maintained.
- 2.1.2.2 Verification of these security measures are conducted, at minimum, annually.

#### 2.1.3 Maintaining effective on-site and chemical storage security

- 2.1.3.1 General site security and storage areas are controlled and access is restricted. This will help minimize possible adulteration through employees and others who have malicious intent within an RPC provider's wash centers.
- 2.1.3.2 Chemical segregation and storage is the most critical aspect of any internal security effort within a wash operation. Chemicals should be stored in locked areas at all times and accessible to authorized personnel only.

#### 2.1.4 Maintaining effective security of all personnel

- 2.1.4.1 Employees are the only individuals authorized in the facility unsupervised. Each and every one is trained on proper protocol if an unauthorized person is found inside a restricted area.



2.1.4.2 For those seeking entry such as contractors or visitors, a policy and protocol is in place to allow them controlled access and be supervised when in sensitive areas of the facility.

**2.1.5 Providing and properly maintaining appropriate Personal Protective Equipment (PPE)**

2.1.5.1 Personal Protective Equipment (PPE) is primarily designed to protect employees from safety hazards and should be used as needed.

2.1.5.2 The correct use and type of PPE should be worn to help maintain both health and food safety, and will be determined according to wash facility activities.

**2.1.6 Adopting and maintaining an incident response strategy**

2.1.6.1 In the event of an emergency, procedures and personnel are in place to handle the event.

2.1.6.2 These procedures include a recall policy, recall action team, protocol for investigating security concerns and an emergency contact list.



### 3 Issue: Sanitation

The RPA Wash Process recommendation is, at its core, a simple sanitation procedure. Because RPCs are a pooled asset, they require the very best sanitation procedures possible. It is recommended that a company use only the best inline RPC wash machine technology available and uses industry accepted processes and procedures in both environmental and finished product sanitation.

A comprehensive sanitation program includes consideration of:

- Wash Temperature
- Contact Time
- Detergent
- Sanitizer
- Microbiology
- Drying
- Packaging

#### 3.1 THE BEST PRACTICES ARE:

##### 3.1.1 Complying with government regulations on product sanitation

3.1.1.1 The RPA recommends that all companies comply with FDA olefin polymer regulations 21 CFR 177.1520(c)(3.2a), as well as Food Packaging Materials and Incidental Additives Regulations published by the CFIA. All food contact containers should be washed, rinsed, sanitized and air dried between every issue, without fail. This is in accordance with FDA Food Code 4-602.11 and 4-703.11 and all other RPC industry standard food contact surface requirements.

##### 3.1.2 Complying with government (local, regional and national) ordinances of environmental sanitation



## 4 Issue: Transportation

Transportation and logistics are easily forgotten pieces of the food supply chain. However, they are no less critical to the maintenance of food safety. RPA recognizes that all companies have a role in a safe and secure food supply chain and pledge to do our part in keeping food safe during transit.

### 4.1 THE BEST PRACTICES ARE:

#### 4.1.1 Maintaining the safety and protection of trailers

- 4.1.1.1 This includes keeping van trailers or flatbed trailers covered.
- 4.1.1.2 Keeping trailers in good condition and repair, and food safe.

#### 4.1.2 Using and abiding by trailer inspection reports

- 4.1.2.1 Ensures each and every trailer that hauls products are inspected for quality, safety and integrity fit for food transport.
- 4.1.2.2 RPC Providers inspect every trailer before loading for sanitary status.
- 4.1.2.3 Grower has trailer inspection signed and passed with each load.

#### 4.1.3 Using, maintaining and abiding by load seals

- 4.1.3.1 Every trailer loaded with a company's products should be sealed with a coded load seal and recorded. This seal is documented and maintained.
- 4.1.3.2 In the event of tampering or evidence of tampering, the load can be deemed adulterated and unfit for use.

#### 4.1.4 Working from loading diagrams and schematics

- 4.1.4.1 Growers and Retailers should be given loading diagrams and schematics designed to maximize loading efficiency and ensure product safety in transit. These diagrams should be shared and carriers trained in which to use.
- 4.1.4.2 This will maximize efficiency and decrease cost in the supply chain and lower overall RPC costs for both the providers and their users.
- 4.1.4.3 Two versions of loading diagrams should be used: one for loading RPCs only; and one for RPCs with finished product.



## **5 Issue: Receiving**

Receiving procedures should be followed by both the grower and at retail.

### **5.1 THE BEST PRACTICES ARE:**

- 5.1.1 Ensuring the grower receives fully-wrapped RPC pallets**
- 5.1.2 Ensuring the trailer is load sealed**
- 5.1.3 Ensuring the RPCs have been properly loaded to retailer specification**
- 5.1.4 Communicating delivery details and notifying customer service as well as account manager, immediately if there are any problems.**
- 5.1.5 Checking for correct invoicing and instructions**



## 6 Issue: Storage

Storage includes at the grower and at retail. This includes best practices for warehouse and retail back room.

### 6.1 THE BEST PRACTICES ARE:

#### 6.1.1 Store RPCs inside under cover, when grower facilities accommodate

- 6.1.1.1 Do not store in areas where active pest activity is present or the likelihood of pest activity is present.
- 6.1.1.2 Do not store food contact packaging with non-food contact or hazardous materials.

#### 6.1.2 Load RPCs in the warehouse like any other packaged commodity according to retailer specification

- 6.1.2.1 RPC pallets are handled like any other packaged commodity and slotted accordingly.
- 6.1.2.2 RPC order selection occurs first. RPCs form the base of the order to maximize stability and superior quality.
- 6.1.2.3 Because RPCs are modular and interlocking, the greater percentage of use will yield a greater correlating benefit to produce quality, employee safety and operational efficiency.

#### 6.1.3 Use a single pallet footprint in the retailer back room

- 6.1.3.1 Fill the single pallet and wrap tightly before starting another returns pallet.
- 6.1.3.2 Once the single pallet of returns is full, immediately send back on salvage truck.
- 6.1.3.3 Minimize clutter and trash. Consolidate and fold all RPCs. Do not leave anything inside the used RPCs that are being returned to the providers.





## 7 Issue: Returning

Care must be taken when returning RPCs.

### 7.1 THE BEST PRACTICES ARE:

#### 7.1.1 Stack empty or used RPCs in a uniform and interlocking manner, collapsed

7.1.1.1 Use one pallet for dirty RPCs.

7.1.1.2 Use one pallet for broken RPCs.

7.1.1.3 Wrap tightly when finished return pallet is 72 inches in height, or a height designated by the RPC provider, to maximize loading and transport efficiency.

#### 7.1.2 Notify RPC provider when returns inventory reaches the following:

7.1.2.1 Stores: more than 1 pallet or scheduled weekly pickup.

7.1.2.2 Growers: more than ½ truckload or end of season activity. (30 pallets)

7.1.2.3 Distribution Centers: more than 1 truckload or scheduled weekly pickup. (60 pallets)

#### 7.1.3 Do not throw away, reuse or accumulate RPCs.



## 8 Issue: Usage

Proper usage supports the safety and extends the longevity of RPCs.

### 8.1 THE BEST PRACTICES ARE:

**8.1.1 Follow RPC erecting directions carefully**

**8.1.2 Ensure all latches are “clicked” and locked**

**8.1.3 Cross stack all full RPCs according to retailer specifications where applicable**

**8.1.4 Misuse of RPCs is prohibited. Treat RPCs with respect and as a critical part of the food supply chain**

8.1.4.1 Only use RPC compliant labels.

8.1.4.2 RPC compliant labels consist of a non-permanent, non-rubber based adhesive married to a non-paper based synthetic substrate label on a waxed liner.

8.1.4.3 Pressure sensitive acrylic emulsion adhesives approved for use through RPC providers must be used. Non-compliant adhesives will permanently damage property owned by the RPC provider.

8.1.4.4 As a rented commodity, owner requirements must be respected and followed.

8.1.4.5 Do NOT use screws, staples, tape or wax on the RPC.

8.1.4.6 Do NOT place trash, food, or excessive stickers on empty RPCs.



## 9 Issue: Testing

Testing and evaluating label adhesive formulations used on RPCs helps minimize damage to the RPC, reduces cost of label and residue removal from the RPC, and increases label removal quality and efficiency.

### 9.1 THE BEST PRACTICES ARE:

- 9.1.1 Follow the RPA Label Adhesive Test Methodology in Appendix A.
- 9.1.2 For approved adhesives and substrates, please contact your RPC provider for more information.
- 9.1.3 Non-compliant adhesives or substrates will not be tolerated.



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## APPENDIX A: RPA Label Adhesive Test Methodology

**Goal** – Test and evaluate label adhesive formulations used on RPCs (Reusable Plastic Containers) in an effort to minimize damage to the RPC, reduce cost of label and residue removal from the RPC, and increase label removal quality and efficiency.

**Methodology** – Test labels will be placed on 100 RPCs and placed into closed van trailers for a period of 5-7 days. The RPCs to be used in the test must be pre inspected and determined free of any label or foreign materials. Test labeled RPCs will then be offloaded and queued to be washed. They will wait to be washed in warehouse conditions for no longer than 24 hours. After being subjected to the RPC wash process, they will be evaluated according to a predetermined list of questions and criteria. Observations and test label performance will be recorded.

**Preparation #1** – Determine testing criteria for the simulated reverse logistics conditions as well as the predetermined list of criteria that will be used in the performance evaluation of the test labels.

**Preparation #2** – Prospective label supplier will provide RPC labels with various adhesive and back stock formulations to be tested in a predetermined group of RPC wash centers.

**Activity #1** – Inspect and clear RPCs for the test, apply test labels to the inspected RPCs, subject the test labeled RPCs to simulated reverse logistics conditions, and finally subject the RPCs to the RPC wash process.

**Activity #2** – Evaluate the performance of the test labels, the condition of the RPC, and the quality and efficiency of the removal process after the test is concluded versus a predetermined list of criteria.

### 1. Reverse Logistics Conditions

- a. Test labeled RPCs will be placed in a closed van trailer for a minimum of 5 days and maximum of 7 days.
- b. Before use, the closed van trailer will be inspected and passed for transport of food and/or food contact materials per *Sanitary Transportation Act of 2005*.



- i. A standardized trailer inspection form will be distributed and used for the test.
- c. Test labeled RPCs will be offloaded from closed van trailer after the determined time period and queued for washing.
- d. Test labeled RPCs will wait in a warehouse environment for washing no more than 24 hours.

## 2. Testing Criteria List

- a. Previous to testing, performance parameters will be made in order to maintain test integrity and possible deviation from prescribed goals.
- b. If the questions made in this preparation section do not adequately answer or achieve the goals of this test, another test with modified performance parameters is recommended.
- c. Specific and repeatable testing performance criteria will be designed to minimize variability and opinion of multiple evaluators in multiple locations.
- d. The testing criteria will be separated into two segments. *Reverse Logistics Performance* and *Wash Process Performance*.

## 3. Reverse Logistics Performance Testing Criteria

- a. Inspect 100 RPCs to ensure they are free of any label, partial or whole, as well as any foreign material including but not limited to; residue, organics, or other chemical, biological and physical hazards commonly associated with RPCs?  
Yes/No
- b. Apply test labels to all 100 inspected RPCs on the right corner of the short side wall of the RPC? Yes/No
- c. Conduct closed van trailer inspection using standardized trailer inspection form to clear trailer for use with food and/or food contact material prior to use?  
Yes/No
- d. Load inspected closed van trailer with test labeled RPCs and seal securely for a minimum time period of 5 days and a maximum of 7 days? Yes/No
- e. Upon completion of the prescribed time period, offload the RPCs from the closed van trailer into a warehouse environment? Yes/No
- f. ***Reverse Logistics Performance Segment* questions will now be conducted.**
  - i. Are there any test labels completely removed from the RPC surface?  
Yes/No
    - 1. If yes, how many RPCs do not have test labels attached?
      - a. This number will be recorded on a standardized test log.



- ii. Is there any visible adhesive residue on the RPC where the test label was attached? Yes/No
  - 1. If yes, how many RPCs have visible adhesive residue?
    - a. This number will be recorded on a standardized test log.
- iii. Only RPC's with test labels still attached will continue to the wash process? Yes/No
  - 1. This number will be recorded on a standardized test log.
- iv. Test labeled RPCs enter the RPC wash process within 24 hours of offloading from the closed van trailer? Yes/No

#### **4. Wash Process Performance Testing Criteria**

- a. Only RPCs from the simulated reverse logistics segment with test labels still attached will be washed? Yes/No
  - i. This number will be recorded on a standardized log.
- b. Test labeled RPCs enter the RPC wash process within 24 hours of offloading from the closed van trailer? Yes/No
- c. RPC Wash Process Limits
  - i. RPC wash process minimum cycle time is 20 seconds and maximum cycle time is 40 seconds? Yes/No
    - 1. Cycle speed will be recorded once and logged on a standardized test log.
  - ii. Water maintains a minimum 110°F and a maximum 140°F? Yes/No
    - 1. Water temperature will be recorded once and logged on a standardized test log.
  - iii. Water maintains an adequate concentration of detergent suitable for cleaning food contact material? Yes/No
    - 1. Detergent concentration will be recorded once and logged as “per company spec,” or “out of company spec” on standardized test log.
  - iv. Water maintains an adequate concentration of sanitizer suitable for sanitizing food contact material? Yes/No
    - 1. Sanitizer concentration will be recorded once and logged as “per company spec, or “out of company spec” on standardized test log.
  - v. Test labeled RPCs are air dried to adequately eliminate any visible water droplet collection or dripping from the RPC? Yes/No
    - 1. Dryness will be recorded once and logged as “visibly dry,” or “not visibly dry” on standardized test log.



d. ***Wash Process Performance Segment*** questions will now be conducted.

- i. Are there any RPCs with test labels still attached, whole or in part, to the RPC surface? Yes/No
  1. If yes, how many RPCs still have test labels attached?
    - a. This number will be recorded on a standardized test log.
- ii. If manual test label removal is necessary, did said test label break, split, or separate during the manual removal process? Yes/No
  1. If yes, how many labels broke, split or separated?
    - a. This number will be recorded on a standardized test log.
- iii. Is there any visible adhesive residue on the RPC where the test label was attached? Yes/No
  1. If yes, how many RPCs have visible adhesive residue?
    - a. This number will be recorded on a standardized test log.

**5. Reporting**

- a. Upon completion of the test, each site will submit their filled out standardized test log to a single repository.
  - i. Individual repository cannot be physically involved in testing and/or logging test results. The individual repository must be segregated from testing facilities to maintain process integrity.
- b. Individual repository will have the responsibility to compile test data in a presentable form summary and report said summary to the RPA Adhesive Label Task Force within 90 days of test conclusion.