



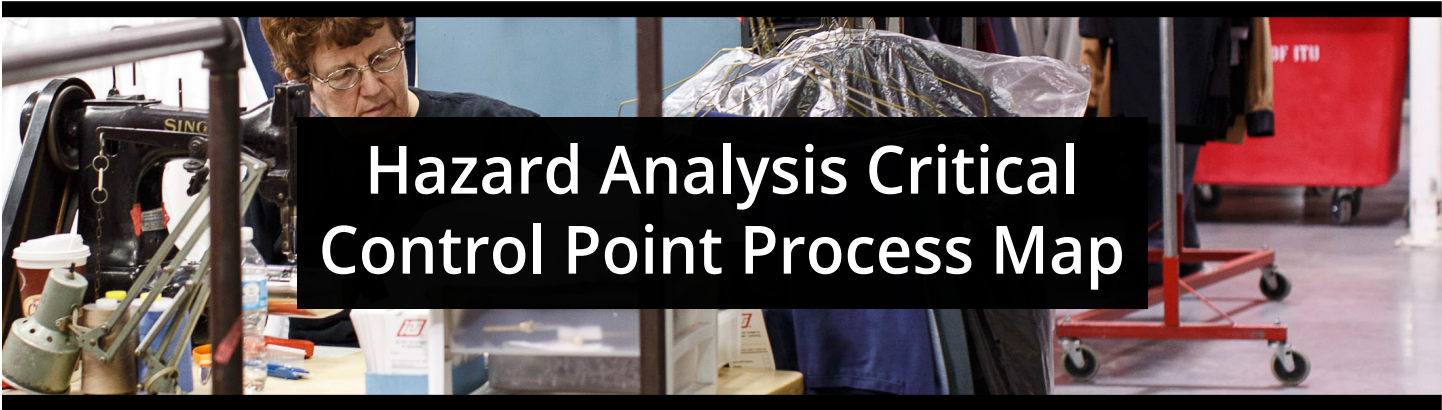
# Hazard Analysis Critical Control Point Process



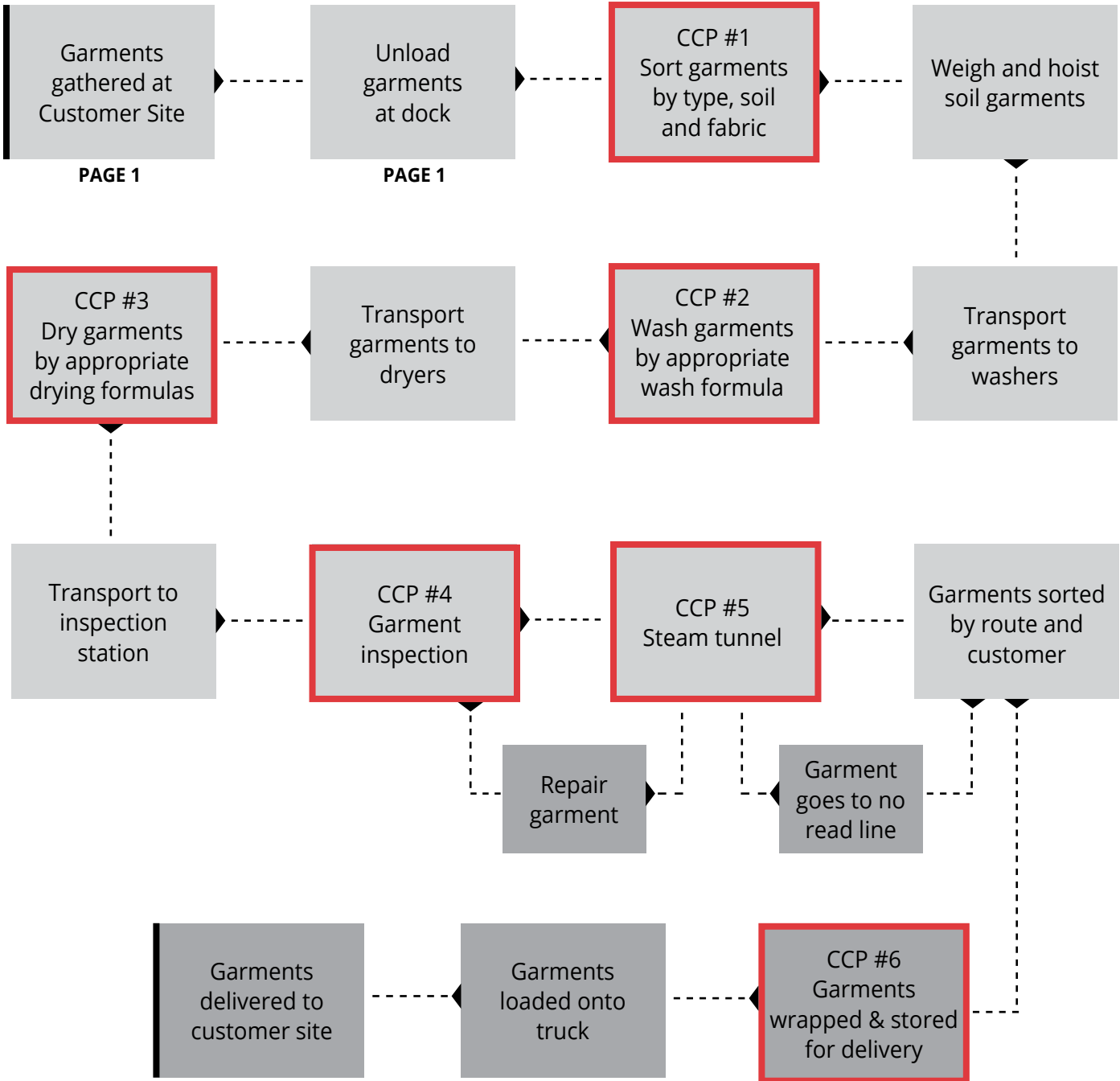
**Jim & David Leef**  
Third Generation Owners

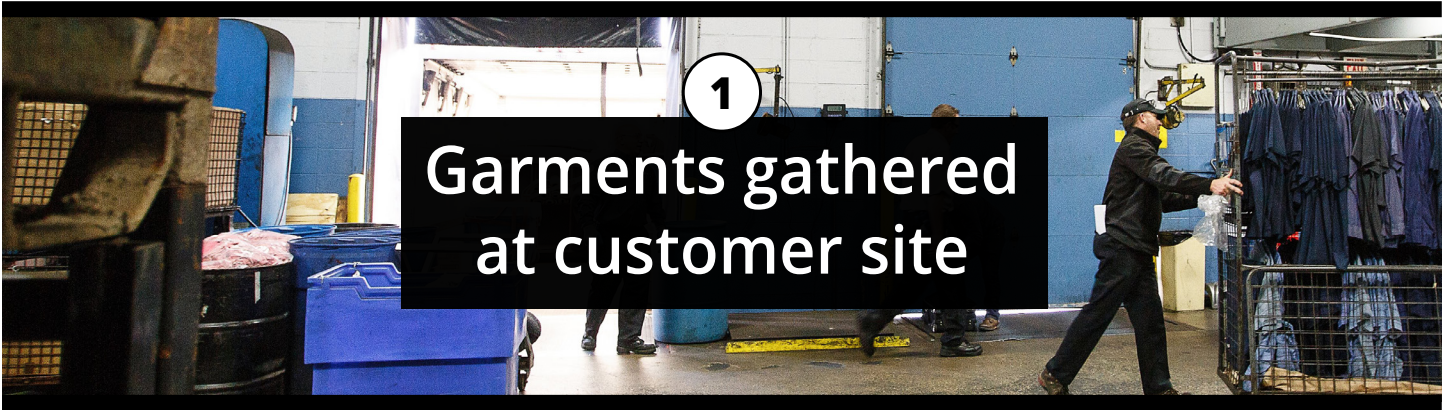
Updated  
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# Hazard Analysis Critical Control Point Process Map





## Description

Soiled garments gathered at customer and segregated by type of garment in plastic bags. Soiled garments are transported to production facility in plastic bags or garment cages to avoid cross contamination with other microbial soiled garments.

## Controls

### Work instructions?

AbsorbU GSE Training

## Validation

New Berlin auditing of routes (dock auditor)

**Internal HACCP audit (create form for audit process)**



**Jeff**  
Dock Auditor



## Description

Garments are removed from route trucks or relays and moved to garment soil sorting area.

## Controls

New Berlin Cart Repair identification  
New Berlin Relay Truck unloading  
New Berlin Route Truck unloading  
New Berlin Auditing of Routes

## Preventative Maintenance (per internal standard operating practices)

Monthly Sonic Aire delinting

## Validation

New Berlin Auditing of Routes (dock auditor)  
New Berlin 14001 employee training matrix  
New Berlin ISO 14001-2004 certification of registration  
**Internal HACCP audit (create form for audit process)**



### **Description**

Garments are soil sorted by type of garment (i.e. shirts vs. pants) and by color of garment (i.e. color shirt vs. white shirt) and loaded into segregated garment only slings.

### **Controls**

New Berlin Soil Garment Sorting

**Washing of garment slings**

### **Preventative Maintenance (per internal standard operating practices)**

Monthly Sonic Aire delinting

### **Validation**

**Internal HACCP audit (create form for audit process)**

New Berlin 14001 employee training matrix

New Berlin ISO 14001-2004 certification of registration



## Description

Slings of soil garments sorted by soil and type are weighed to ensure proper washer load size. Prior to hoisting up soil garments operator selects monorail storage line for garments.

## Controls

CEPr 5.1.1 attachment 2b- Equipment and gauges calibration list (New Berlin)  
New Berlin soil garment sorting (**indicate proper weights in work instruction**)  
NBWI4.6.86 Hoist Inspection  
NBWI 4.6.89 Safe Sling Practices and Methods  
NBWI4.6.90 Trolley and Sling Inspection

## Preventative Maintenance (per internal standard operating practices)

Monthly Hoist inspections  
Annual OSHA required Hoist Inspections  
Monthly Sonic Aire delinting

## Validation

**Internal HACCP audit (create form for audit process)**  
New Berlin 14001 employee training matrix  
New Berlin ISO 14001-2004 certification of registration



## **Description**

Garments are released from hoist onto the monorail system to await washing.

## **Controls**

NBWI 4.6.86 Hoist Inspections  
NBWI 4.6.89 Safe Sling Practices and Methods  
NBWI 4.6.90 Trolley and Sling Inspection  
New Berlin Cart repair identification

## **Preventative Maintenance (per internal standard operating practices)**

Quarterly Monorail inspections  
Monthly Sonic Aire delinting

## **Validation**

**Internal HACCP audit (create form for audit process)**



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## Wash garments by appropriate wash formula

### Critical Control Process #2

#### Description

Operator brings soil garment slings to washer and loads into washer. Empty soil garment slings are then transported on the monorail back to soil hoist sling staging line. Operator enters proper wash formula into the washer key pad and into washer that matches garment type and color being washed. Operator starts the wash cycle.

Optimal food soil specific wash formulas:

- Fresh water only for washing food processing garments
- Proper Chemistry is utilized to provide optimal food soil removal and suspension
- Wash formula structure with good mechanical action aids in physical soil and microbial removal for optimal cleanliness and quality
- Dilution effect from multiple rinses suspends soil/microorganisms and rinses them down the drain
- pH swings (alkaline & acids) provides ranges of soil removal opportunities, microbial pH intervention and proper final pH for skin control of garments (acidic)
- Wash formulas are monitored for temperature greater than 160 degrees F for at least 25 minutes, chemistry delivery and proper final pH of garment
- utilization of EPA registered laundry disinfectant (Advacare) rather than chlorine bleach

#### Controls

All hard surfaces of washer where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces utilizing an EPA registered hard surface disinfectant, following proper concentration and contact time per label.

New Berlin Air Operating Permit  
New Berlin Wastewater Discharge Permit  
New Berlin Spindle Dashboard  
New Berlin washer program list  
New Berlin 75LBS wascomat log  
New Berlin machine 1-9 (80lb, 135lb, 450lb, 900lb) washer log  
New Berlin chemical tank inspection- bulk tanks  
New Berlin chemical tank inspection- day tanks



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NBWI4.6.00 Washroom & dryer room operation overview  
NBWI4.6.22 Washer start-up and shutdown  
NBWI4.6.24 Washer (w7) 135lb operation  
NBWI4.6.28 Ellis 900lb washer 1 operation  
NBWI4.6.34 Small washer 75lb wascomat operation  
NBWI4.6.57 Change chemical drums  
NBWI4.6.92 Ellis VOC 900lb washer 2 operation  
NBWI4.6.93 Washer 4 ellis 450lb operation  
NB4.6.97 Ellis 900lb washer 3 operation  
NBWI4.6.102 washer (8&9) 80lb unimac operation  
NBWI4.6.103 open pocket washer extractor operation

### **Preventative Maintenance (per internal standard operating practices)**

Weekly washer inspections  
Monthly washer inspections  
Monthly Sonic Aire delinting  
Yearly washer inspections

### **Validation**

Monitored monthly by a trained ECOLAB specialist

- Calibration of dispensing system for proof of chemical delivery
- Titration of wash formulas for proof of chemical delivery and optimal pH, detergency, oxidation parameters
- Written service report proving titration results, other findings and recommendations

### **ATP testing of washer**

14001 employee training matrix

New Berlin ISO 14001-2004 certification of registration

### **Internal HACCP audit (create form for audit process)**



## Description

Operator unloads washer into slings or carts. Operator then hoists the slings and sends to dryer area or rolls the cart to dryer area. Braun washer unloads directly onto shuttle and takes directly to Braun dryer.

## Controls

All hard surfaces of carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces utilizing an EPA registered hard surface disinfectant, following proper concentration and contact time per label.

NBWI 4.6.89 Safe Sling Practices and Methods  
NBWI 4.6.90 Trolley and Sling Inspection  
NBWI 4.6.00 Washroom and Dryer Room Operation Overview  
NBWI 4.6.103 Open-Pocket Washer Extractor Operation  
NBWI 4.6.104 Washer 6 200 lb. Braun Operation  
NBWI 4.6.93 Washer 4 Ellis 450lb Operation

## Preventative Maintenance (per internal standard operating practices)

Monthly Hoist Inspections  
Monthly lift inspections  
Monthly Sonic Aire delinting  
Quarterly monorail inspections

## Validation

### ATP testing of washer

14001 employee training matrix  
New Berlin ISO 14001-2004 certification of registration

**Internal HACCP audit (create form for audit process)**



## Dry garments by appropriate drying formulas

Critical Control Process #3

### Description

Operator unloads slings or carts into dryer. Operator enters proper dry formula/time into dryer controls for garment type being dried. Operator starts the dry cycle. Braun washer unloads onto shuttle and directly into Braun dryers. Braun dryers start per formula used for washing.

- Dryers Formulas Temperatures are greater than 160 degrees F

### Controls

All hard surfaces of dryers and carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces utilizing an EPA registered hard surface disinfectant, following proper concentration and contact time per label.

NBWI 4.6.00 Washroom and Dryer Room Operation Overview

NBWI 4.6.25 Dryer 5 Operation

NBWI 4.6.27 Ellis Whisper 450lb Dyer 1&2 Operation

NBWI 4.6.37 Small Dryer 13 Operation

NBWI 4.6.39 Cleanout Dryer Basket Holes

NBWI 4.6.49 Lint Collector

NBWI 4.6.81 Small dryer 11 & 12 Operation

NBWI 4.6.85 Small Dryer 11 & 12 Temp Controls Setting

NBWI 4.6.89 Safe Sling Practices and Methods

NBWI 4.6.90 Trolley and Sling Inspection

NBWI 4.6. 103 Open-Pocket Washer Extractor Operation

CEPR 5.1.1 Attachment 2b -Equipment and Gauges Calibration List (New Berlin)

New Berlin Environmental Management System Reference CHALLENGE Dryer 5 Settings

New Berlin Environmental Management System Reference WHISPER Dryer 1 Settings

New Berlin Environmental Management System Reference WHISPER Dryer 2 Settings

New Berlin Dryer 1-13 load log

New Berlin Dryer Daily Visual Lint Trap Check

New Berlin Air Operating Permit

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## **Preventative Maintenance (per internal standard operating practices)**

Daily Dryer Inspections  
Weekly Dryer Inspections  
Monthly Dryer inspections  
Monthly Sonic Aire delinting

## **Validation**

### **ATP testing of washer**

14001 employee training matrix  
New Berlin ISO 14001-2004 certification of registration  
**Internal HACCP audit (create form for audit process)**





### **Description**

Operator moves clean dry garments from dryer area to steam tunnel staging area.

### **Controls**

All hard surfaces of carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces utilizing an EPA registered hard surface disinfectant, following proper concentration and contact time per label.

New Berlin Cart Identification

### **Preventative Maintenance (per internal standard operating practices)**

Monthly Sonic Aire delinting

### **Validation**

**ATP testing of slings/carts**  
**Internal HACCP audit (create form for audit process)**



# Garment inspection

## Critical Control Process #4

### Description

Clean garments are removed for the garment cart and placed on a hanger. During this process the operator visually inspects the clean garment per the Corporate- Garment Quality Specifications. If the clean garment does not meet the Corporate- Garment Quality Specifications the garments RFID chip is scanned into the mending RFID antenna, placed on the steam tunnel conveyor, travels through the steam tunnel and drops off the conveyor to the garment mending area.

### Controls

All hard surfaces of carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces utilizing an EPA registered hard surface disinfectant, following proper concentration and contact time per label.

- NBWI 4.6.02 Tunnel start-up and shutdown
- NBWI 4.6.08 Steam tunnel operators
- Corporate- Garment Quality Specifications
- New Berlin inspect, fold, and sort aprons and coveralls

### Preventative Maintenance (per internal standard operating practices)

- Weekly Steam Tunnel Inspection
- Monthly Steam Tunnel Inspection
- Monthly Sonic Aire delinting
- Quarterly Steam Tunnel Inspection
- Yearly Steam Tunnel Inspection

### Validation

- ATP testing of table top**
- 14001 employee training matrix
- New Berlin ISO 14001-2004 certification of registration
- Internal HACCP audit (create form for audit process)**



## Description

All garments are visually inspected for necessary repairs and the repair is performed. After garment is repaired the garment is placed on the steam tunnel conveyor sent through the steam tunnel for proper microbial intervention.

## Controls

All hard surfaces of carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces **utilizing an EPA registered hard surface disinfectant**, following proper concentration and contact time per label.

Corporate- Garment Quality Specifications  
New Berlin Button Installation  
New Berlin Garment Mending  
New Berlin Snap Installation

## Preventative Maintenance (per internal standard operating practices)

Monthly Sewing Machine Inspection  
Monthly Button Machine Inspection  
Monthly Sonic Aire delinting

## Validation

**ATP testing of table top**  
**Internal HACCP audit (create form for audit process)**



## Description

Clean garments are brought to the press area in a clean garment cart. Garments are pressed and put on hangers.

## Controls

All hard surfaces and carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments **utilizing an EPA registered hard surface disinfectant**, following proper concentration and contact time per label.

New Berlin model CSFV dressing  
New Berlin model CSFV operating controls

## Preventative Maintenance (per internal standard operating practices)

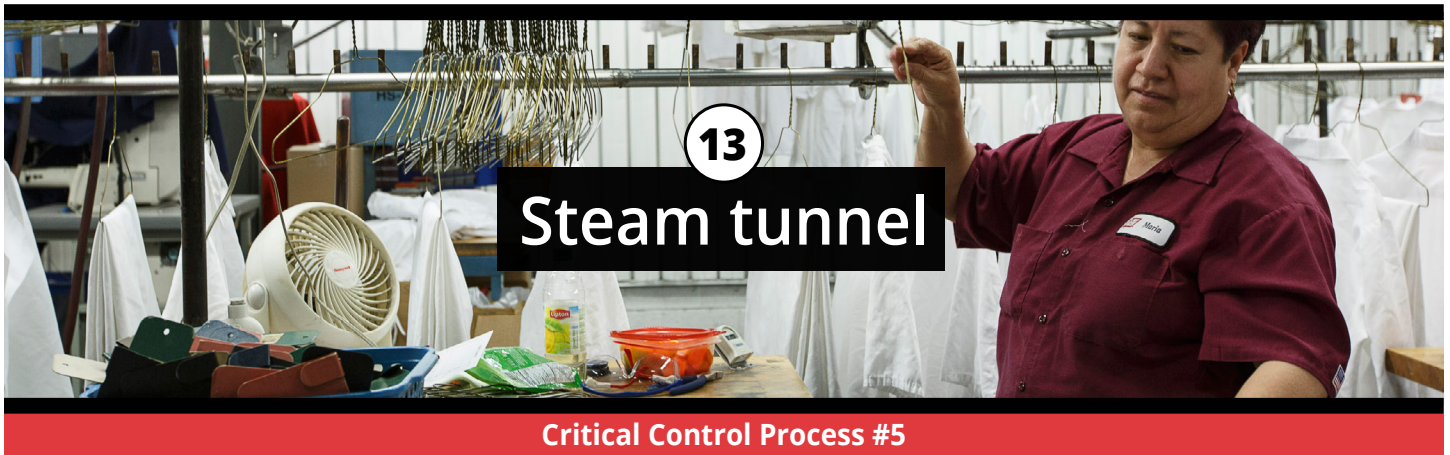
Monthly press inspections

## Validation

### ATP testing of carts

14001 employee training matrix  
New Berlin ISO 14001-2004 certification of registration  
**Internal HACCP audit (create form for audit process)**





## Description

Garments travel through a steam tunnel set at 300 degrees Fahrenheit allowing the actual garment temperature to reach 285 degrees Fahrenheit. The garment travels through the steam tunnel for approximately 4 ½ minutes to ensure proper microbial intervention and to ensure proper garment finishing (i.e. removal of wrinkles).

## Controls

NBWI 4.6.02 Tunnel start-up and shutdown  
NBWI 4.6.08 Steam tunnel operators  
Spindle Monitoring Program

## Preventative Maintenance (per internal standard operating practices)

Weekly Steam Tunnel Inspection  
Monthly Steam Tunnel Inspection  
Monthly Sonic Aire delinting  
Quarterly Steam Tunnel Inspection  
Yearly Steam Tunnel Inspection

## Validation

Monitored monthly by a trained ECOLAB Specialist who provides a written service report regarding the steam tunnel performance  
14001 employee training matrix  
New Berlin ISO 14001-2004 certification of registration  
**Internal HACCP audit (create form for audit process)**



## **Description**

Garments travel through a designated sort room via the RFID chip where the operator visually inspects the clean garment per the Corporate- Garment Quality Specifications. As the garment travels through the sort room the clean garments are sorted and prepared by customer for each route.

## **Controls**

Corporate- Garment Quality Specifications  
New Berlin Garment Sort Room Operation

## **Preventative Maintenance (per internal standard operating practices)**

Weekly Sort Room Inspections  
Monthly Sort Room Inspections

## **Validation**

**Internal HACCP audit (create form for audit process)**



## Description

Garments travel through a designated sort room via the RFID chip where the operator visually inspects the clean garment per the Corporate- Garment Quality Specifications. As the clean garment travels through the sort room the clean garments will go to a no read line if the RFID antenna is unable to read the RFID chip. **Once a new RFID is assigned to the garment is sent back to Steam Tunnel: CCP#5.**

## Controls

All hard surfaces of carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces **utilizing an EPA registered hard surface disinfectant**, following proper concentration and contact time per label.

Corporate- Garment Quality Specifications  
New Berlin Garment Sort Room Operation  
New Berlin Bag and Tag Garment Processing

## Preventative Maintenance (per internal standard operating practices)

Weekly Sort Room Inspections  
Monthly Sort Room Inspections

## Validation

**ATP testing of table top**  
**Internal HACCP audit (create form for audit process)**



# Garment inspection

Critical Control Process #6

## Description

Final Inspection on the clean garments is performed by the operator per the Corporate- Garment Quality Specifications. The clean garments are wrapped appropriately to minimize cross-contamination and are now ready for delivery back to the customer site.

## Controls

All hard surfaces of carts where garments contact are regularly disinfected to minimize cross-contamination of clean garments on soiled surfaces **utilizing an EPA registered hard surface disinfectant**, following proper concentration and contact time per label.

- New Berlin Final Loading Check
- New Berlin Garment Sort Room Large Side Loading
- New Berlin Garment Sort Room Operation
- New Berlin Garment Sort Room Small Side Loading

## Preventative Maintenance (per internal standard operating practices)

- Weekly Sort Room Inspections
- Monthly Sort Room Inspections

## Validation

- Monitored monthly by a trained ECOLAB specialist
- Monthly hygienically clean testing for textiles is performed by a chemist at ECOLAB

**ATP testing of garment cages/tubs**

**Internal HACCP audit (create form for audit process)**

















