Iowa-Illinois Safety Council Safety Award Program

Exemplifying and Representing Continuously Improving Organizations

Submissions from 2015 – Part 3
(Awards given at the 2016 PDC)

Iowa-Illinois Safety Council
Chapter of National Safety Council
Your Safety & Health Leader

Zero Waste Efforts Reduce Dumpster Use

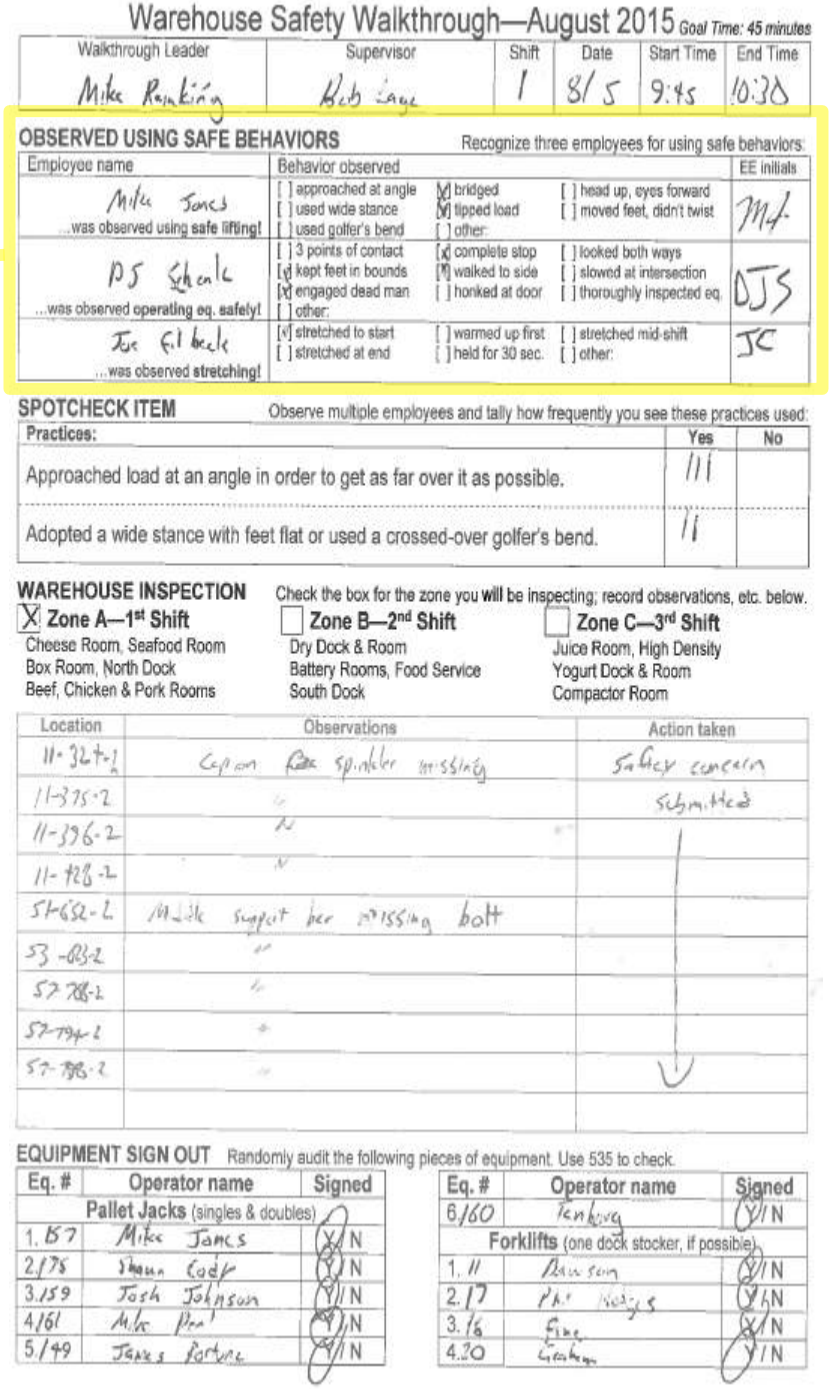
Before: Employees from several departments were regularly exposed to fall and crushing hazards related to dumping and compacting refuse.

After: Zero Waste efforts diverted great volumes of waste from the landfill, decreasing how often employees must work with the compactor. Dumpster pick ups decreased from once a week to once every 3 or 4 and now those who dumped spoiled and damaged food products almost never have to use it.

Opportunities for Encouragement Added to Safety Walkthroughs

Before: The Warehouse Safety Walkthroughs scheduled for each shift were focused on finding deficiencies in the facility and in employee behaviors, sometimes leading to safety violations or maintenance requests.

After: A new section was added to Safety Walkthroughs providing an opportunity to recognize employees for using some of our core safety practices. For the areas of lifting, equipment operation and stretching, the walkthrough leader notes someone they observe using those practices, marks which ones, gives them encouragement for using them and gets their initials on the form confirming they followed up with them. Now walkthroughs result in more employees receiving positive reinforcement for working safely, than they do in safety violations and maintenance requests.



Warehouse Safety Walkthrough—August 2015 *Goal Time: 45 minutes*

Walkthrough Leader	Supervisor	Shift	Date	Start Time	End Time
Mike Rankin	Bob Lage	1	8/5	9:45	10:30

OBSERVED USING SAFE BEHAVIORS Recognize three employees for using safe behaviors.

Employee name	Behavior observed			EE initials
Mike James ...was observed using **safe lifting!**	[ ] approached at angle [ ] used wide stance [ ] used golfer's bend	[X] bridged [X] tipped load [ ] other:	[ ] head up, eyes forward [ ] moved feet, didn't twist	MJ
DJ Shenk ...was observed **operating eq. safely!**	[ ] 3 points of contact [X] kept feet in bounds [X] engaged dead man [ ] other:	[X] complete stop [X] walked to side [ ] honked at door	[ ] looked both ways [ ] slowed at intersection [ ] thoroughly inspected eq.	DJS
Joe Fitbeck ...was observed **stretching!**	[X] stretched to start [ ] stretched at end	[ ] warmed up first [ ] held for 30 sec.	[ ] stretched mid-shift [ ] other:	JC

SPOTCHECK ITEM Observe multiple employees and tally how frequently you see these practices used:

Practices:	Yes	No
Approached load at an angle in order to get as far over it as possible.	III	
Adopted a wide stance with feet flat or used a crossed-over golfer's bend.	II	

WAREHOUSE INSPECTION Check the box for the zone you will be inspecting; record observations, etc. below.

[X] **Zone A—1st Shift**: Cheese Room, Seafood Room, Box Room, North Dock, Beef, Chicken & Pork Rooms

[ ] **Zone B—2nd Shift**: Dry Dock & Room, Battery Rooms, Food Service, South Dock

[ ] **Zone C—3rd Shift**: Juice Room, High Density, Yogurt Dock & Room, Compactor Room

Location	Observations	Action taken
11-327-2	Cap on fire sprinkler missing	Safety concern
11-375-2		Submitted
11-396-2	"	
11-428-2	"	
54652-2	Middle support bar missing bolt	
53-883-2	"	
57-788-2	"	
57-794-2	"	
57-798-2	"	

EQUIPMENT SIGN OUT Randomly audit the following pieces of equipment. Use 535 to check.

Eq. #	Operator name	Signed
Pallet Jacks (singles & doubles)		
1. 157	Mike James	X/N
2. 175	Shaun Cady	Y/N
3. 159	Josh Johnson	Y/N
4. 161	Mike Peal	X/N
5. 149	James Fortune	Y/N

Eq. #	Operator name	Signed
6. 160	Tenberg	Y/N
Forklifts (one dock stocker, if possible)		
1. 11	Dawson	Y/N
2. 17	Phil Hodges	Y/N
3. 16	Elmo Graham	X/N
4. 20		Y/N

Reducing Noise Levels in the Lobster Room

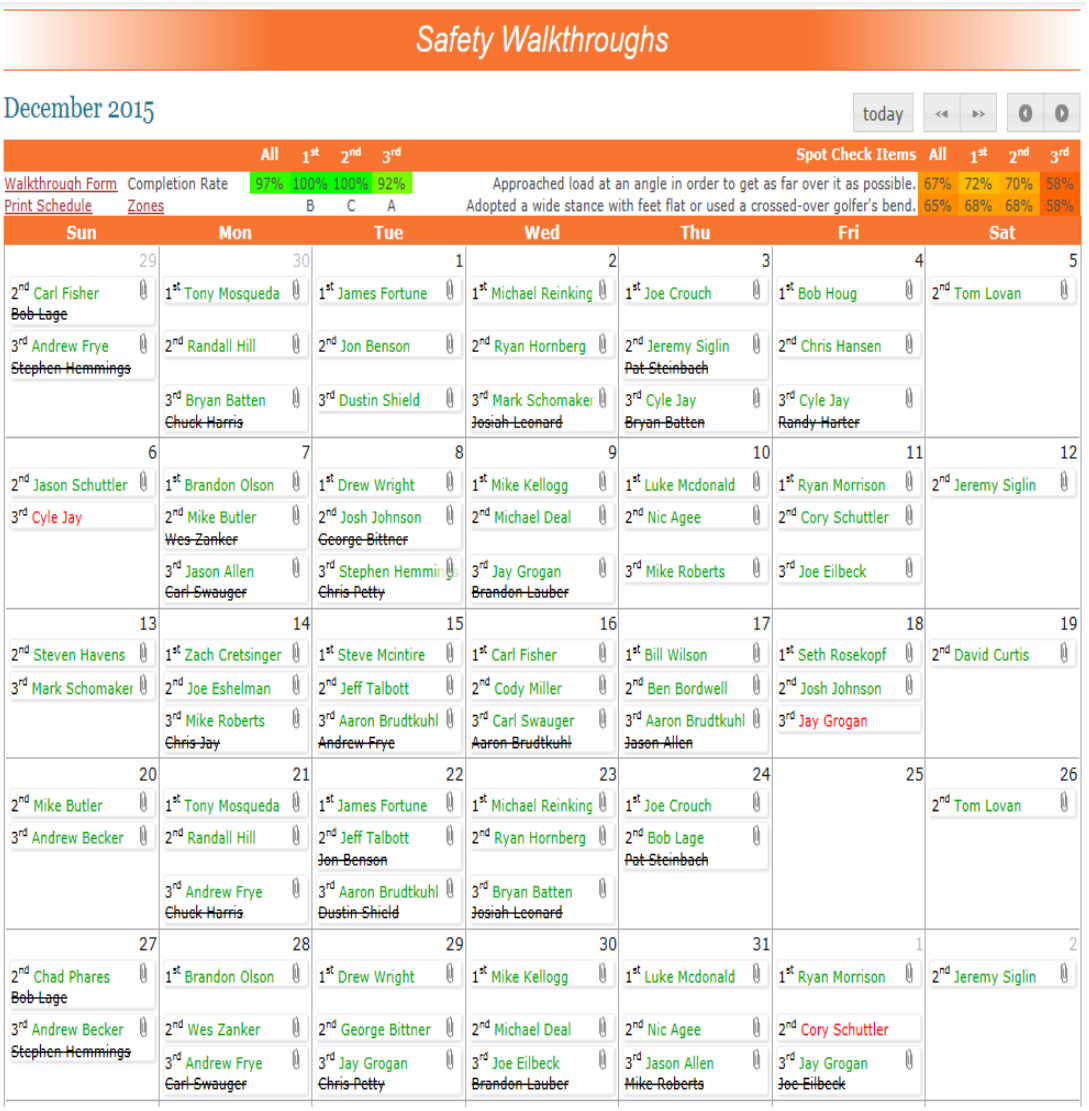
Before: New water pumps for our lobster tank increased the noise level in the area.

After: Sound baffling material was used to reduce the amount of noise produced by the water pumps.

Online Walkthrough Calendar

Before: Safety Walkthroughs are an important tool for spotting unsafe conditions, ensuring equipment is signed out and encouraging safe behaviors, but the percentage completed had fallen from 95.5% in 2013 to 86.4% in 2014. The rate continued to fall in 2015. Occasionally last month's form was used, leading to part of the warehouse getting skipped that day.

After: An online Safety Walkthrough calendar was launched, creating much greater visibility, accountability, and convenience for completing walkthroughs. It also became the only method for printing walkthrough forms, eliminating saving down old ones. Other features include highlighting employees who need someone else to cover their walkthrough because they scheduled the day off, tracking substitutions to determine if changes need to be made to the walkthrough schedule, and a running walkthrough completion rate. The rate climbed from 79.5% for Jan.—Sept., to 93.6% for Oct.—Dec. 2015.



Safety Walkthroughs

December 2015

today

	All	1st	2nd	3rd
Walkthrough Form Completion Rate	97%	100%	100%	92%
Print Schedule Zones		B	C	A

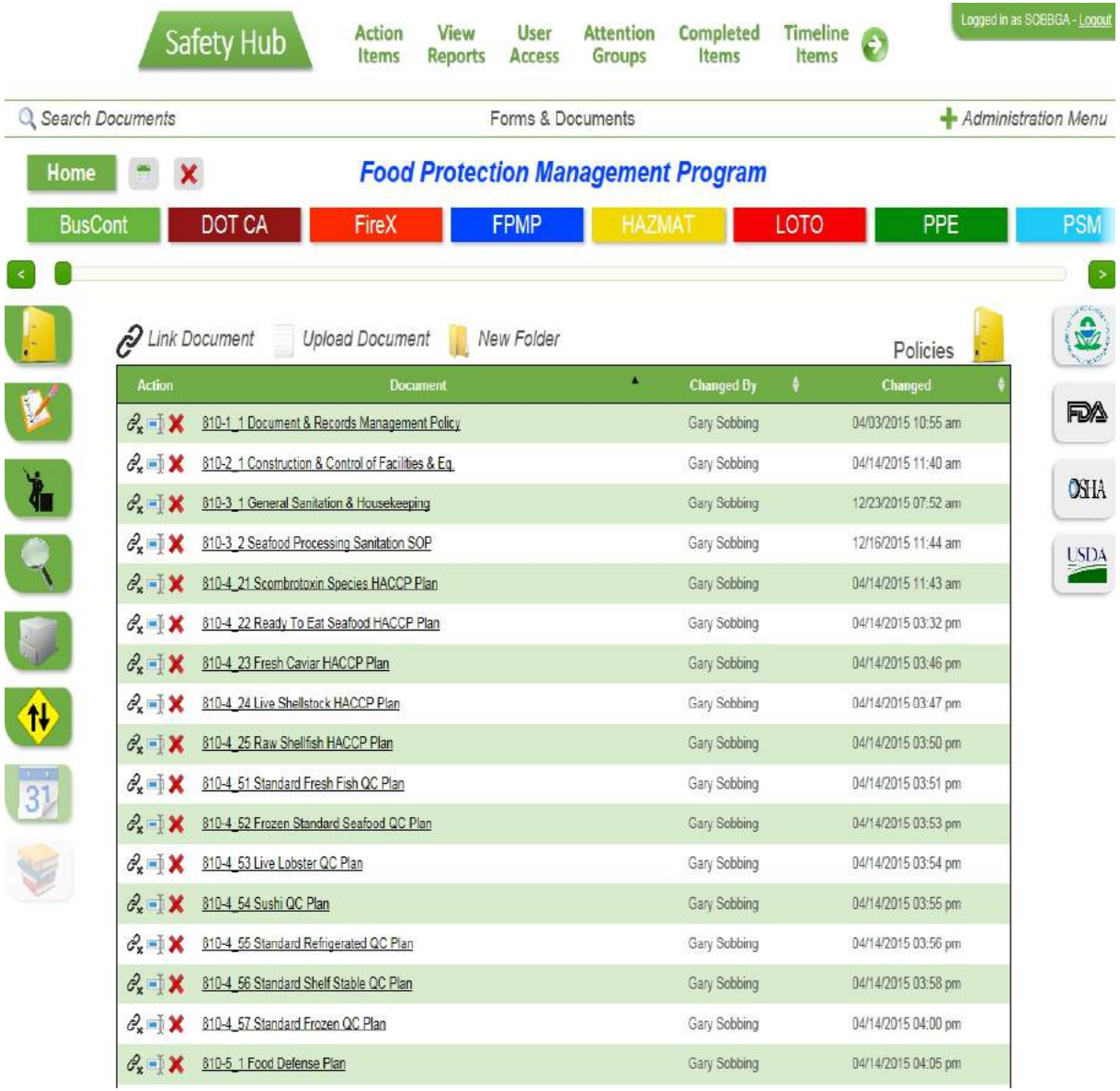
Spot Check Items	All	1st	2nd	3rd
Approached load at an angle in order to get as far over it as possible.	67%	72%	70%	58%
Adopted a wide stance with feet flat or used a crossed-over golfer's bend.	65%	68%	68%	58%

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29 2nd Carl Fisher ~~Bob Lage~~ 3rd Andrew Frye ~~Stephen Hemmings~~	30 1st Tony Mosqueda 2nd Randall Hill 3rd Bryan Batten ~~Chuck Harris~~	1 1st James Fortune 2nd Jon Benson 3rd Dustin Shield	2 1st Michael Reinking 2nd Ryan Hornberg 3rd Mark Schomaker ~~Josiah Leonard~~	3 1st Joe Crouch 2nd Jeremy Siglin ~~Pat Steinbach~~ 3rd Cyle Jay ~~Bryan Batten~~	4 1st Bob Houg 2nd Chris Hansen 3rd Cyle Jay ~~Randy Harter~~	5 2nd Tom Lovan
6 2nd Jason Schuttler 3rd Cyle Jay	7 1st Brandon Olson 2nd Mike Butler ~~Wes Zanker~~ 3rd Jason Allen ~~Carl Swauger~~	8 1st Drew Wright 2nd Josh Johnson ~~George Bittner~~ 3rd Stephen Hemmings ~~Chris Petty~~	9 1st Mike Kellogg 2nd Michael Deal 3rd Jay Grogan ~~Brandon Lauber~~	10 1st Luke Mcdonald 2nd Nic Agee 3rd Mike Roberts	11 1st Ryan Morrison 2nd Cory Schuttler 3rd Joe Eilbeck	12 2nd Jeremy Siglin
13 2nd Steven Havens 3rd Mark Schomaker	14 1st Zach Cretsinger 2nd Joe Eshelman 3rd Mike Roberts ~~Chris Jay~~	15 1st Steve Mcintire 2nd Jeff Talbott 3rd Aaron Brudtkuhl ~~Andrew Frye~~	16 1st Carl Fisher 2nd Cody Miller 3rd Carl Swauger ~~Aaron Brudtkuhl~~	17 1st Bill Wilson 2nd Ben Bordwell 3rd Aaron Brudtkuhl ~~Jason Allen~~	18 1st Seth Rosekopf 2nd Josh Johnson 3rd Jay Grogan	19 2nd David Curtis
20 2nd Mike Butler 3rd Andrew Becker	21 1st Tony Mosqueda 2nd Randall Hill 3rd Andrew Frye ~~Chuck Harris~~	22 1st James Fortune 2nd Jeff Talbott ~~Jon Benson~~ 3rd Aaron Brudtkuhl ~~Dustin Shield~~	23 1st Michael Reinking 2nd Ryan Hornberg 3rd Bryan Batten ~~Josiah Leonard~~	24 1st Joe Crouch 2nd Bob Lage ~~Pat Steinbach~~	25	26 2nd Tom Lovan
27 2nd Chad Phares ~~Bob Lage~~ 3rd Andrew Becker ~~Stephen Hemmings~~	28 1st Brandon Olson 2nd Wes Zanker 3rd Andrew Frye ~~Carl Swauger~~	29 1st Drew Wright 2nd George Bittner 3rd Jay Grogan ~~Chris Petty~~	30 1st Mike Kellogg 2nd Michael Deal 3rd Joe Eilbeck ~~Brandon Lauber~~	31 1st Luke Mcdonald 2nd Nic Agee 3rd Jason Allen ~~Mike Roberts~~	1 1st Ryan Morrison 2nd Cory Schuttler 3rd Jay Grogan ~~Joe Eilbeck~~	2 2nd Jeremy Siglin

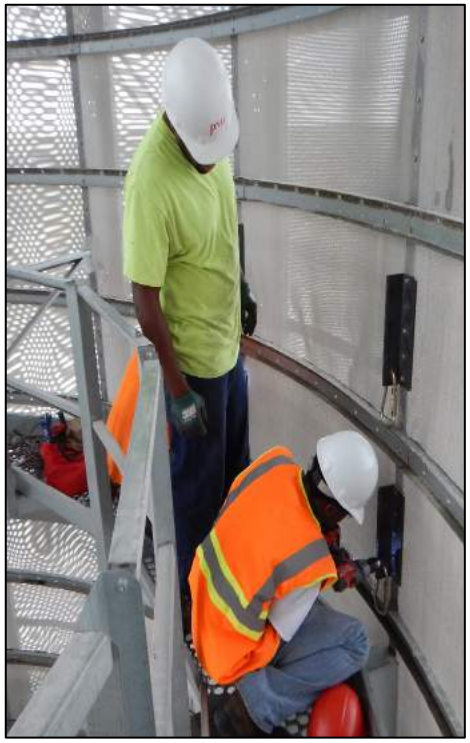
Enhanced Document Management & Compliance Calendar

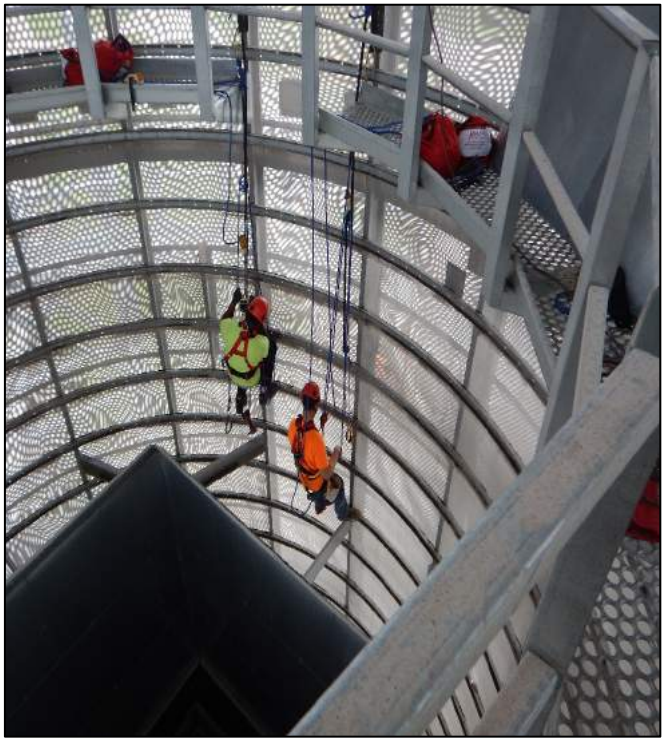
Before: Policies, forms, training materials and other aspects of safety programs were stored in various locations. This made it difficult to keep them all updated, and easy for things to slip through the cracks.

After: A Forms & Documents tab was added to our online Safety Hub, streamlining management of the numerous safety programs. Among other things, it ensures that only the most current versions of policies are made available, and allows users to set up reminders on a compliance calendar.



PMI Iowa was hired to change broken screens inside of Tower Grain Dryers at all levels, exposing employees to fall hazards up to 85 feet. There are no anchor points or suitable structure for tie-off inside of the dryer. We were committed to doing this safely, with no injuries and remaining tied off 100% the entire time.





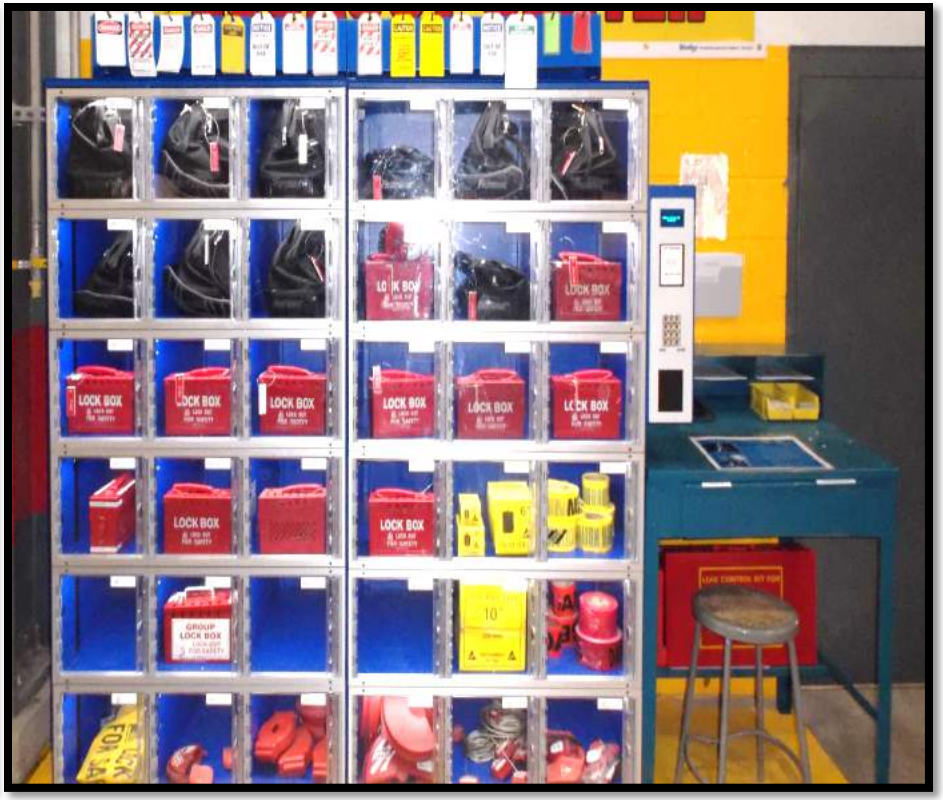
PMI designed, certified and manufactured suitable anchor points, trained employees in rope access techniques and developed a procedure for changing screens at any height inside of the dryer while remaining tied off 100% of the time and protecting the rope systems from the multiple sharp edges inside of the dryer.

Project: Cycle Count Stairs

The cycle count ladder was replaced. The new stairs are sturdier and have railings for convenience and added safety. We are also able to safely access higher shelves with the new stairs. The new cycle count stairs also lock in place during use to avoid movement.

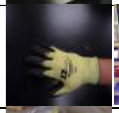
Re-designed Lockout Station

Previously we had a cabinet with non-specific LOTO boxes and lockout devices. The cabinet was a disorganized mess.



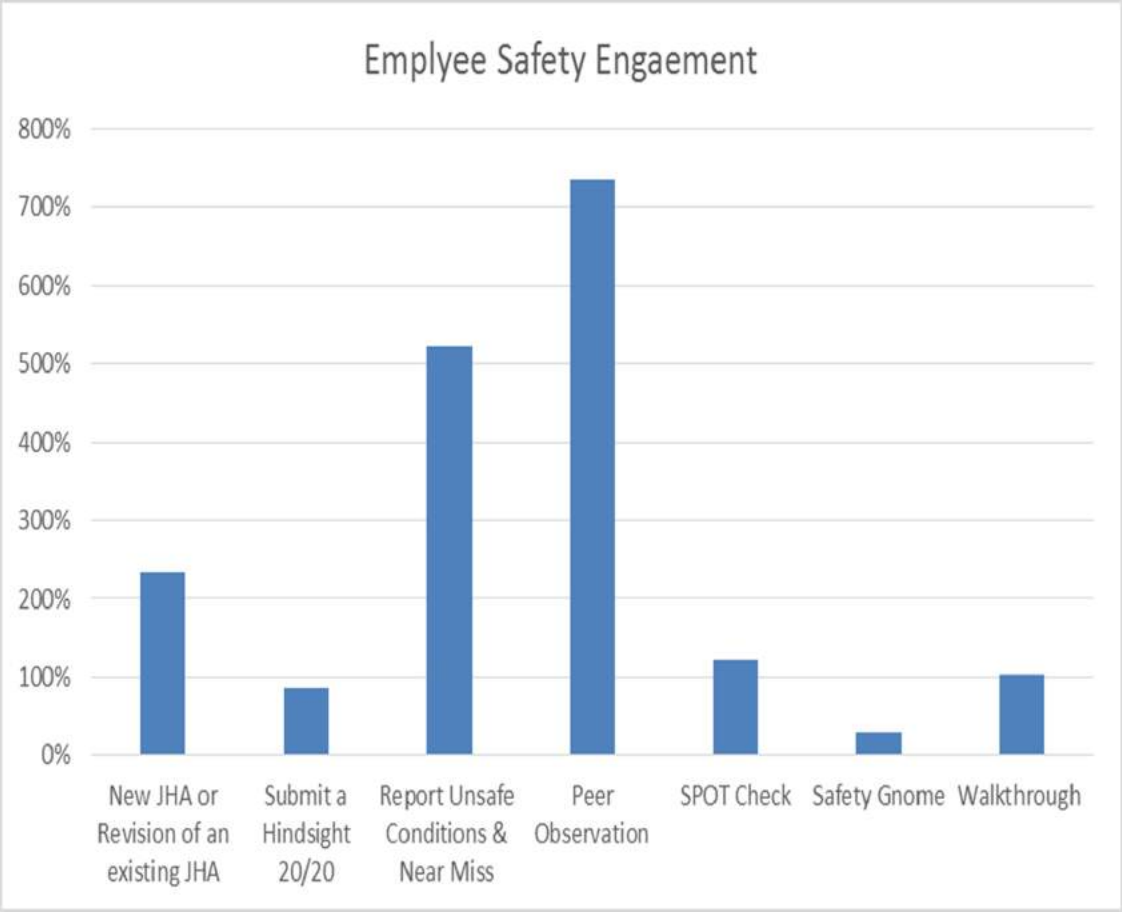
Now we have an organized LOTO station with pre-made-up bags and group boxes specific to common lockouts throughout the plant, making LOTOs safer and more straight-forward.

Glove Use and Hazard Matrix

Common Name	Picture	Location	Chemical Protection	Puncture Resistance	Tear Resistance	ASTM Voltage Rated	Use	Blood Born Pathogens	Cold Weather	Hot Surfaces
Leather			NO PROTECTION	✓	✓	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	PROTECTION LIMITED JHA MUST BE AUTHORIZED	✓
Chemical			✓	PROTECTION LIMITED JHA MUST BE AUTHORIZED	NO PROTECTION	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	NO PROTECTION	NO PROTECTION
Winter		Ordered by Maintenance Clerk	NO PROTECTION	✓	✓	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	✓	✓
Winter		Ordered by Maintenance Clerk	NO PROTECTION	✓	✓	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	✓	✓
Welding Gloves		Ordered by Maintenance Clerk	NO PROTECTION	✓	✓	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	✓	✓
Welding Gloves		Ordered by Maintenance Clerk	NO PROTECTION	✓	✓	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	✓	✓
Dish Washing		Ordered by Maintenance Clerk	PROTECTION LIMITED JHA MUST BE AUTHORIZED	NO PROTECTION	NO PROTECTION	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	NO PROTECTION	NO PROTECTION
Cut Resistant			NO PROTECTION	✓	✓	NO PROTECTION	Multiple Upon inspection	NO PROTECTION	PROTECTION LIMITED JHA MUST BE AUTHORIZED	NO PROTECTION
Electrical 5000 volts		Ordered by Maintenance Manager	NO PROTECTION	NO PROTECTION	NO PROTECTION	✓	Multiple Upon inspection	NO PROTECTION	NO PROTECTION	NO PROTECTION
Synthetic		Ordered by Lab Manager	PROTECTION LIMITED JHA MUST BE AUTHORIZED	NO PROTECTION	NO PROTECTION	NO PROTECTION	Single	NO PROTECTION	NO PROTECTION	NO PROTECTION
Nitrile		Ordered by Lab Manager	PROTECTION LIMITED JHA MUST BE AUTHORIZED	NO PROTECTION	NO PROTECTION	NO PROTECTION	Single	✓	NO PROTECTION	NO PROTECTION

Increased Employee Safety Engagement

By changing our Employee Safety Engagement Program in 2015 we increased the following out puts by…



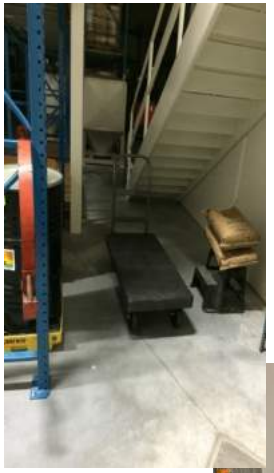
Changes to our Safety Engagement Program…

- Awards
  - From: Gift Cards and PTO
  - To: Awards that hold a Trophy Value or creates a Memory with others
- Bank Points from one year to the next
- Changed Point Values of Activities based on Cultural needs and desired outcomes

Pathways and Exit Routes Blocked

BEFORE

Personnel tended to leave equipment, carts, boxes, etc. in pathways, exit routes, and in front of eyewash stations.



AFTER

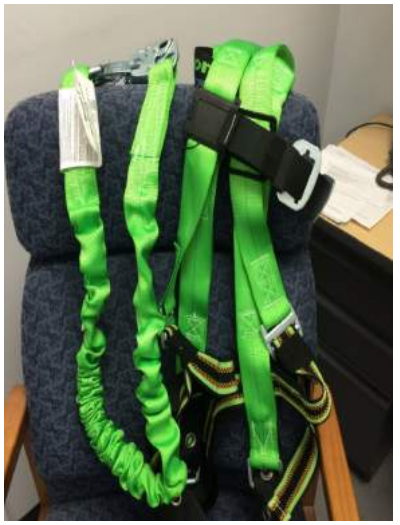
Areas of concern were identified and floor marking tape and floor signs were purchased and installed to provide indication of areas that were to be maintained clear. Special Eyewash Station mats were purchased and installed below all eyewash stations.

Fall Protection Harnesses Were Inadequate.

BEFORE

Existing fall protection harnesses were inadequate in quality and number. Harness inspections were not being conducted regularly and recorded as required. Because workers had to hunt down an available harness, they were not always properly and fully adjusted before use.

AFTER



New harnesses and shock absorbing lanyards were purchased in sufficient quantity for all personnel that may work aloft. Each harness is assigned a unique serial number and assigned to an individual worker. Each harness is then custom adjusted for the worker, ensuring proper fit and full protection of the harness. All required periodic and pre-use inspections/checks are tracked in the Plant Maintenance System.

Chemical Storage Tote Required Handling by Forklift to Dispense Process Chemical

BEFORE

A chemical tote with an acid used in the production process had to be lifted by standup forklift and transported to a floor scale to weigh a Hazardous (proprietary) chemical into carboys for addition to the bulk process. The tote had the potential to tip off the forklift and result in chemical spillage.

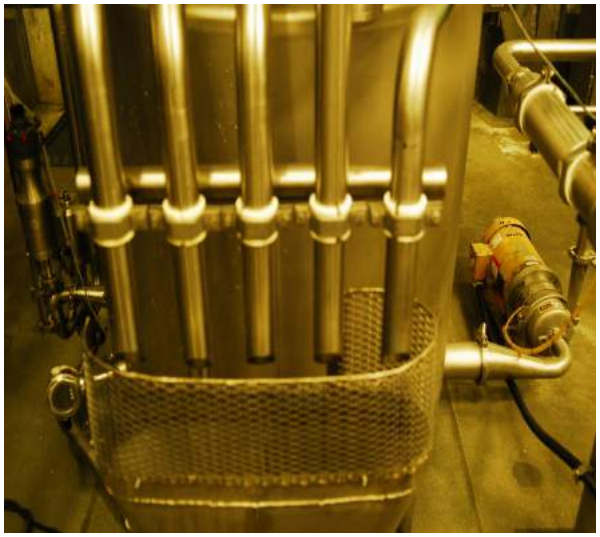
AFTER

A tall spill skid was purchase as well as a dedicated battery powered scale that could be transported to the tote via pallet jack, weighed in place, and transported to the addition pump station without moving the chemical tote. The Chemical Tote is refilled with liquid pumped from drums.

Essentia
Protein Solutions

Harlan, Iowa

Drain Guards



Safe guards from hot solutions

Essentia

Protein Solutions

Harlan, Iowa

Surge Tank Venting

Before

After

Operator Protection from steam source

Essentia

Protein Solutions

Harlan, Iowa

Cook Drain Lines – Independent Draining

Before

After

Eliminates opening cookers during operations for steam exposure

Essentia

Protein Solutions

Harlan, Iowa

Machine Guard Covers Bonemeal

16	Ensure that machine guarding does not allow contact with power transmission parts. Cooker Room.	

Before

After

Essentia

Protein Solutions

Harlan, Iowa

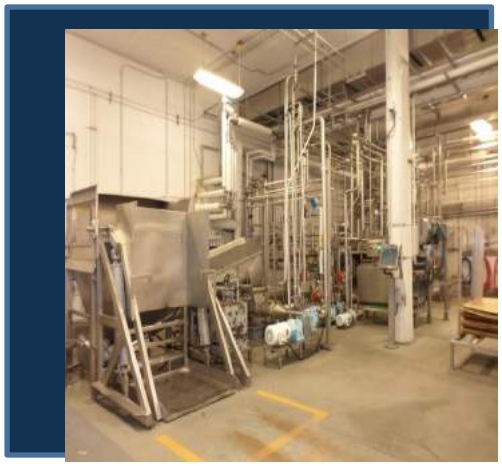
Central Chemical Distribution

Before

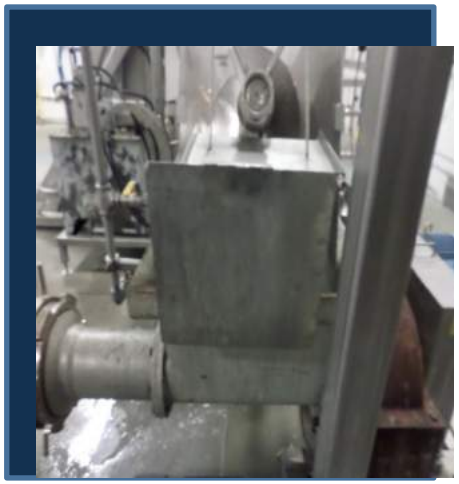
After

Chemical isolation for employee safety when dealing with chemicals

Machine Guarding Weiler Grinder



Befor



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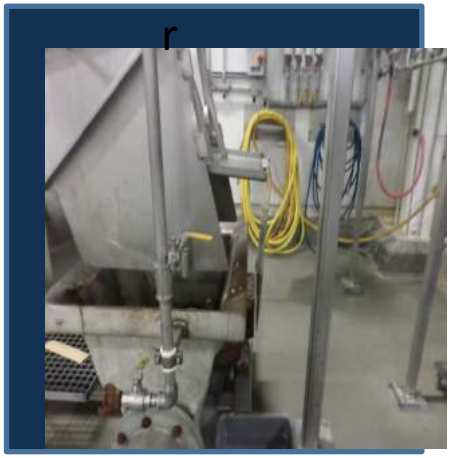

Additional guarding for employee safety added to the Weiler Grinder in wet process.

Essentia
Protein Solutions

Added Fork Lift Safety

Before

Afte
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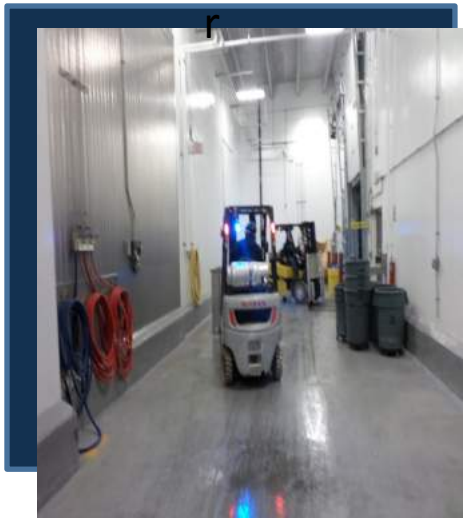
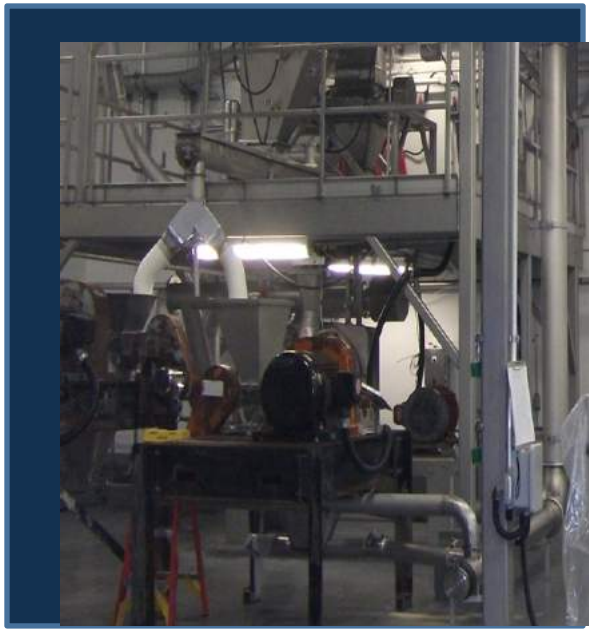


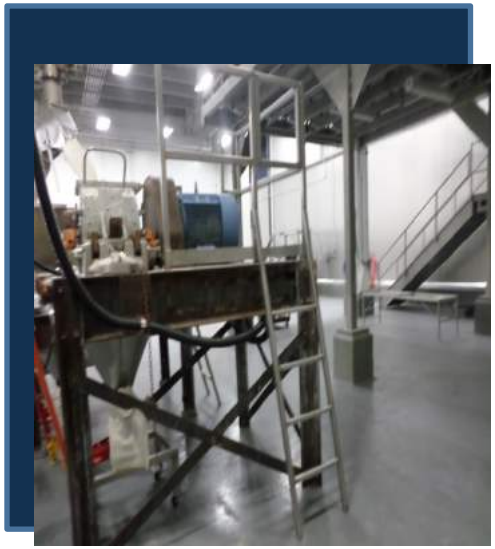
To help additionally protect our employees from moving fork lifts, blue lights were mounted on the front and back of all plant fork lifts for improved visibility.

Essentia
Protein Solutions

Handrail on Hammer Mill



Before



After

A handrail was added to the Hammer Mill to increase safety while accessing the mill.

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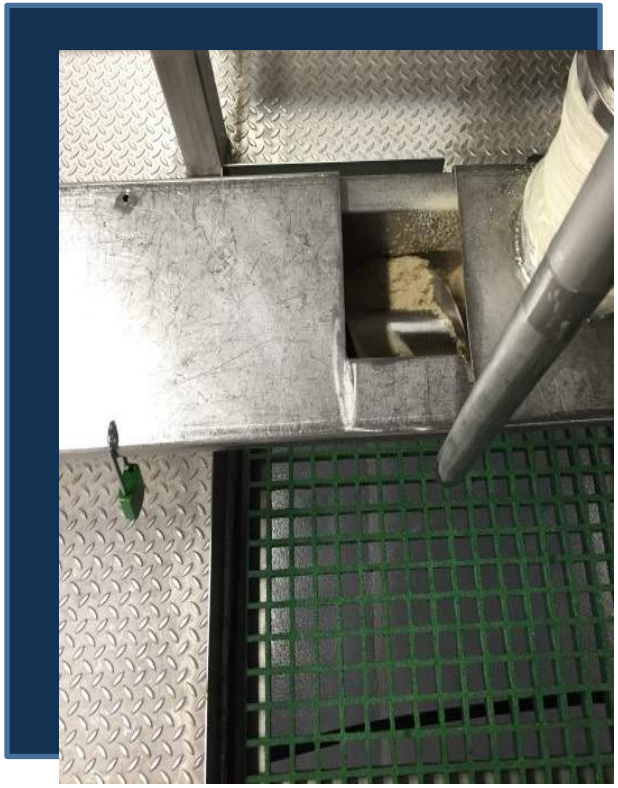
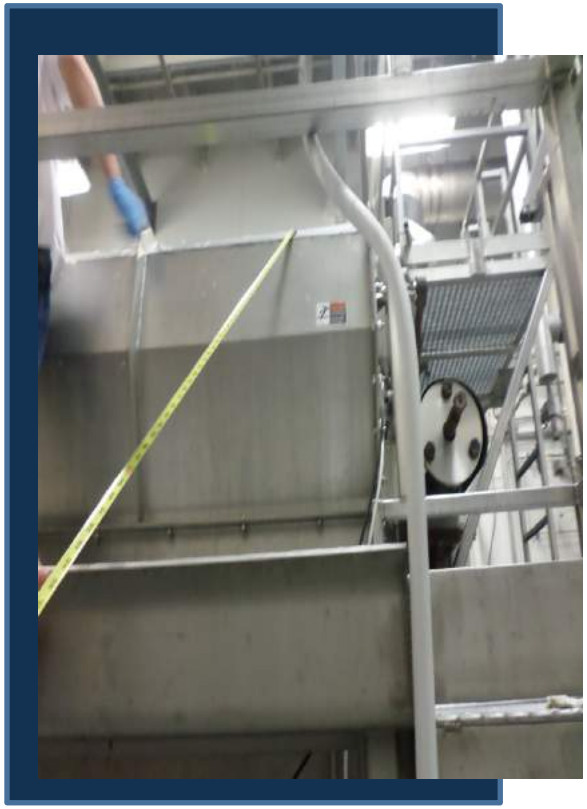
Extended Auger Hopper Drum Dryer #1



Before



After

The auger hopper in drum dryer #1 was extended by five inches to help protect employees.

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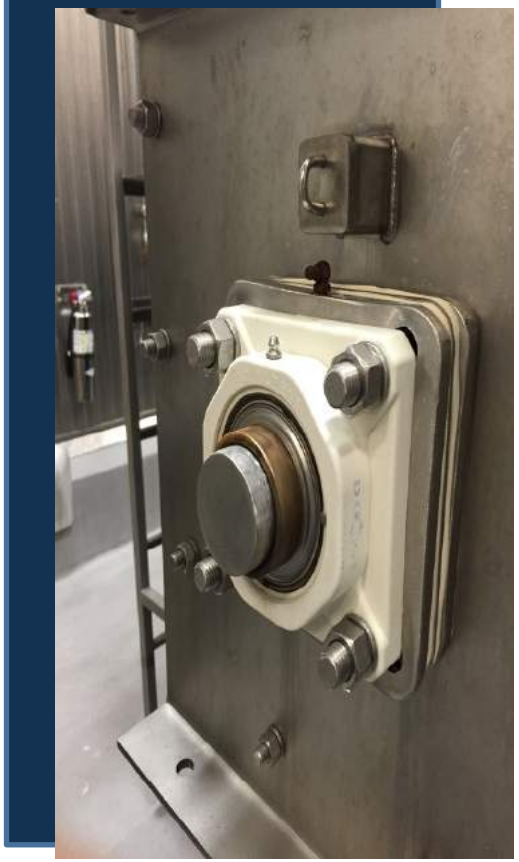
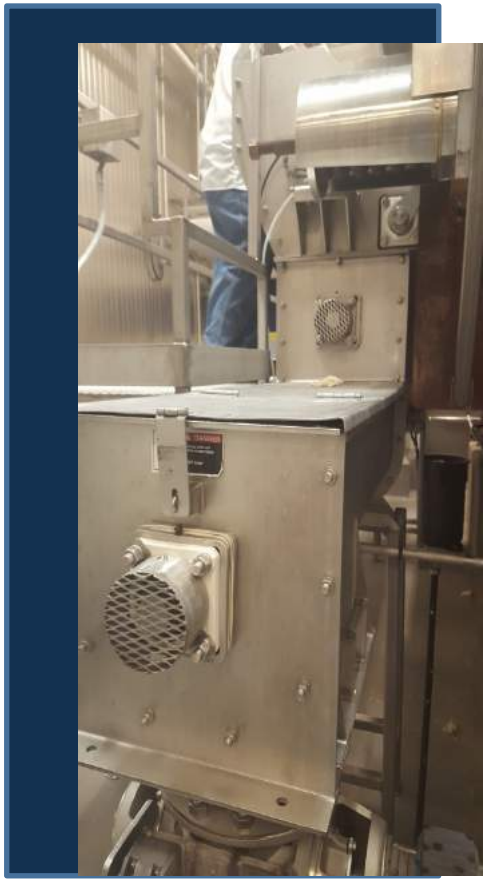
Bearing Caps

Prior to installing the new bearing caps on the dryers, these were open shafts. The addition of bearing caps increases



Before



After

Essentia
Protein Solutions

Auto Cooker Lids

Remote Winch Controls

Electric Winch Motors Mounted Under Cookers.

Auto Cooker Lids

Winch And Cable

Warning Lights At All Doorways And On The Control Box

New Chemical Dispensing System

Doorway Boot Foaming Stations

Remote CIP Controls

New Chemical Dispensing System

Wall Mount Foaming Stations

Bulk Chemicals

New Chemical Room

E- Stop Outside Of Chemical Room.

Dispensers In The New Chemical Room.

Warehouse Racking Changes

Old Racking With Forklift Damage.

New Racking With Angled Supports.

Logistics Tugger Material Handling Project

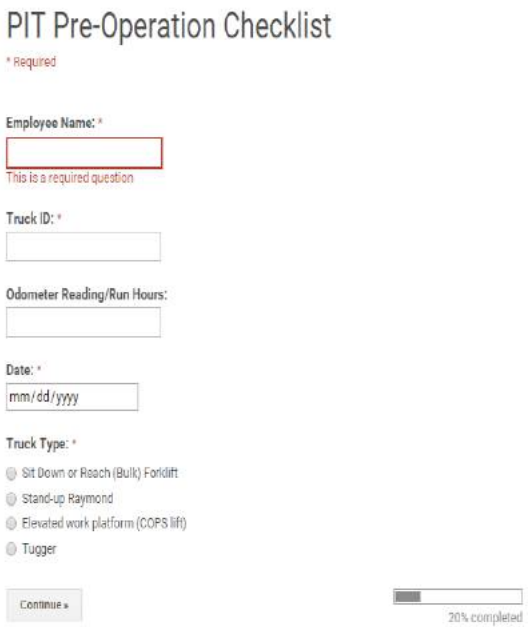
Old Process and Equipment

New Process and Equipment

Challenged traditional method of routing materials by introducing a tugger system:

- Provides a safer environment for all employees by reducing the vehicle traffic in hallways
- Decreases number of movements required to complete workload
- Ergonomically friendly lifting for routers and end customers

Electronic Powered Industrial Truck Inspection Process



PIT Pre-Operation Checklist

* Required

Employee Name: *

This is a required question

Truck ID: *

Odometer Reading/Run Hours:

Date: *

mm/dd/yyyy

Truck Type: *

- Sit Down or Reach (Bulk) Forklift
- Stand-up Raymond
- Elevated work platform (COPS lift)
- Tugger

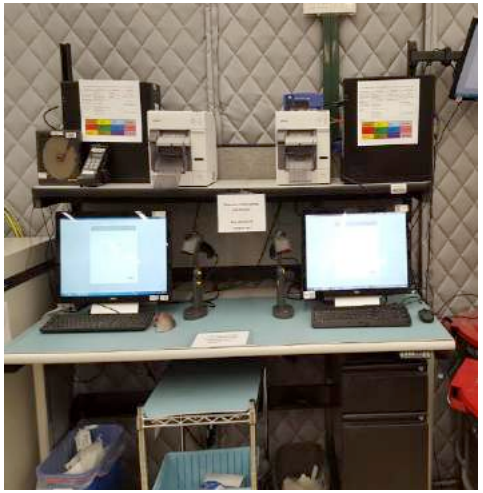
Continue »

20% completed

Development of a tool to electronically store PIT inspection sheets:

- Uses Google Forms to record inspection steps and automates routine data collection with barcodes
- When a truck is marked as “needs maintenance” the manager is automatically send an email

Electronic Chemical Library

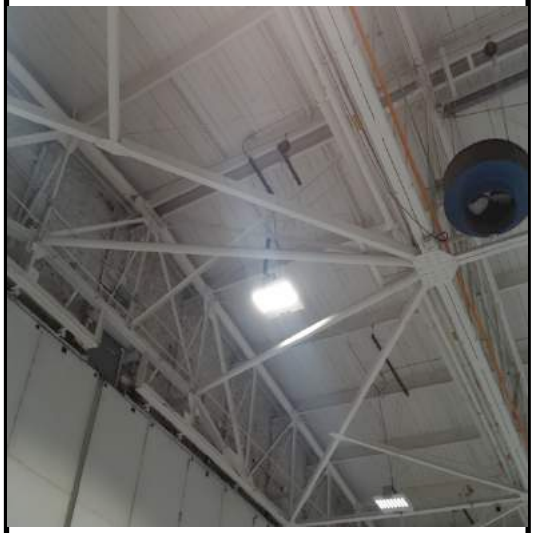


- Electronic Material Library for chemicals used in manufacturing:
  - Tracks expiration dates, use, inventory and disposal using QR codes
  - Identifies who checked out chemical
  - Flags chemicals that are due to expire
  - Reduces waste and quality defects
  - Access controlled through sign-in and automatic cabinet locks.

Fall Protection for Aircraft Servicing

New system

Old System



Servicing, repair and instrument installation can result in working at height on top of airplanes or on top of airplane tails and can pose challenges selecting the right fall protection. Use of stationary retractable lanyards suspended in the rafters required precise positioning of the aircraft. A new approach was desired:

- Vacuum anchors that fasten to the skin of the aircraft were selected (DBI Sala Mobi-Lok).
- Using 2 anchors with adjustable safety cable, workers can now safely walk from one end of the aircraft to the other or work independently on 2 separate aircraft.

Photo Credit - Capital Safety

Fall Protection

Not able to penetrate finished roof to secure a 5,000 lb anchor point

We purchased 2 Angel Anchor points. These are non-penetrating 5,000 lb anchor points that use a series of counterweights.

This will allow us to easily provide anchor points for our employees who must perform work on a finished roof.

This barricade was installed in 2015 by our wrapper machine. We identified this area as a potential for a work related injury due to employees ability to walk behind the wrapper machine while in operation. The operator did not have the ability to see anyone who may be walking behind the machine while in operation. By installing this barricade we have reduced the risk of an injury in this area.

1. Snap-on Tools – Algona, Iowa: Powered Industrial Trucks - traffic hazard – plant-wide

Hazard:
Fork truck traffic occurs in areas where associates are working.
This produces the potential for severe pedestrian/vehicular incidents.

Solution:
Installed "blue" lights to our Powered Industrial trucks. This provides associates with a visual notification that a Powered Industrial Truck is in the area, allowing them additional time to take precautions and avoid potentially serious incidents.

Blue lights send out a spotlight on the floor approx. 15 - 20 feet in front of the vehicle. Light is emitted when vehicle is moving forward or in reverse. *Blue light,* in addition to mandatory horn notification when approaching intersections , has greatly improved the safety of our associates and *minimized the potential for serious vehicle/ pedestrian injuries .*

2. Snap-on Tools – Algona, Iowa: Manually lifting wooden boards onto a conveyor

Hazards:

Operators required to lift wooden boards from stacks on the floor and place them on a conveyor. Boards can weigh up to 30 pounds each.

Lifting concerns; sliver hazards; tripping hazards from boards on floor and disorganization of work area.

Solution:

- Wooden boards were replaced with plastic slip sheets weighing up to a max. of 18 lbs.
- Installed a Pick and Place system: tables holding various sized slip sheets are moved into the machine. Operator then selects size of slip sheet needed. Machine picks up sheet and places it on conveyor.
- *Eliminated sliver and tripping hazards; improved Ergonomic lifting and minimized weight concerns.*
- *Provided an organized/safer work environment for workers performing the task and for anyone entering the work area.*

3. Snap-on Tools – Algona, Iowa: Manually lifting /maneuvering chest sections

Hazard:

Ergonomic and Safety lifting concerns.

Potential for serious strains or sprains. Potential for units to slide/fall off conveyor & strike operator.

Operators had to manually flip top chest & drawer sections to perform required welding of the unit. Operators then lifted unit to insert slip sheet .

Sections could weigh up to 200 lbs.

Solution:

- Up-ender installed on the line. Up-ender: flips and lifts unit for the associate.
- Eliminated manual lifting and flipping of the units by the operator.
- *Eliminated: potential for serious Strain and Sprain hazards and slipping/falling hazards.*

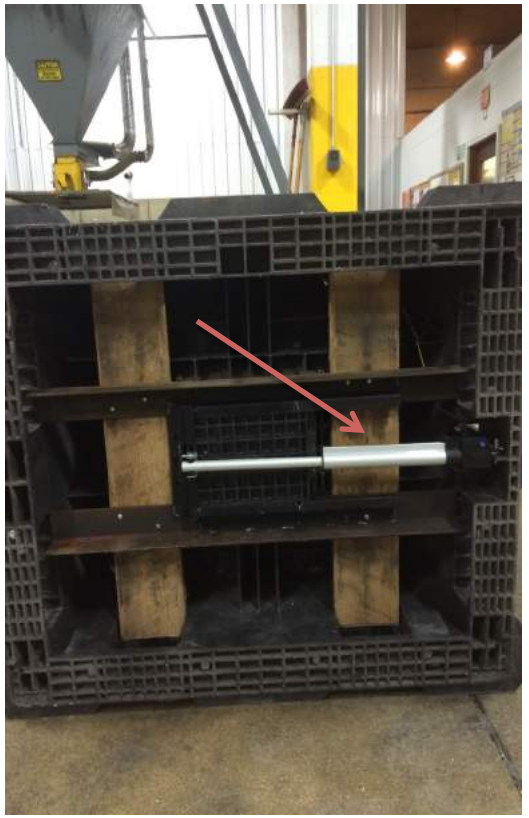
Section slid onto up-ender

Up-ender flips section

Up-ender lifts section

Before

After



Before: In the before photo, the picture shows how our employees would normally open a pro-box full of seed. Typically, this would occur when loading semi trailers. An employee would be placed next to a stand that these boxes are placed on and manually open these slide gates. These boxes full can weigh anywhere between 2400-3000 pounds, posing a significant risk of injury if there were to be an issue.

After: We have made 3 boxes, in house, that are opened automatically by a remote operated by the fork lift drivers. When loading semi trailers, the fork lift operator will set the box onto the stand, use the remote to open the gate on the box allowing the seed to load onto the conveyor and into the truck. Going to the automated boxes removes the person from this process who previously open these slide gates by hand, significantly reducing the likelihood of an injury from this process.

Transporting Filters For Cleaning

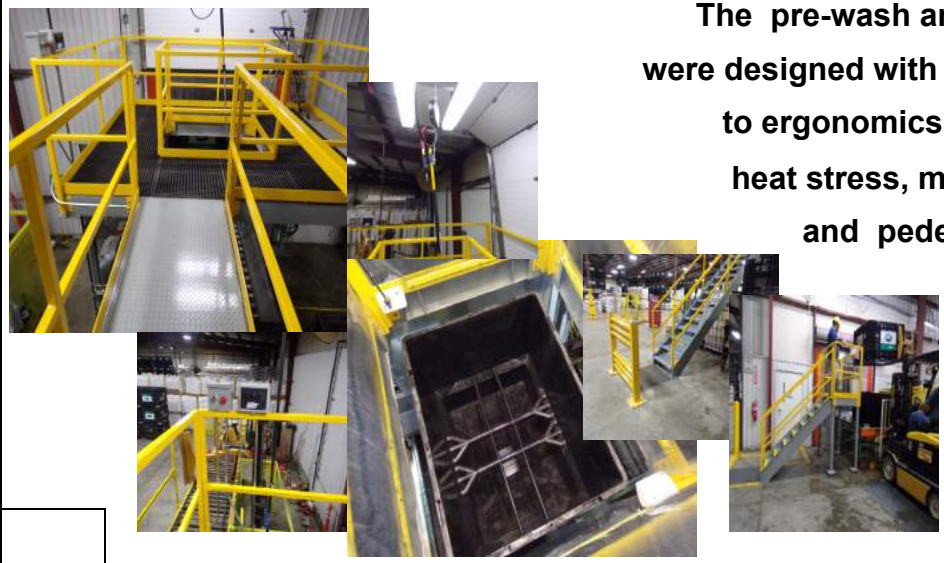
When cleaning dust filters, maintenance was required to physically carry 46, 60 pound filters, down, then back up 7 flights of stairs.

A hoist was installed on the 7th floor allowing maintenance to transport filters to the ground floor safely.

Steve Pope: Syngenta Seed - 300 American Ave. – Jefferson, IA 50129
Steve.pope@syngenta.com
Phone (515) 386-8121 ext. 119

Box Washer Safety Enhancement Project

Electric pallet lift allows the operator to adjust the stack to proper working height.



The pre-wash and inspection station were designed with careful consideration to ergonomics, slips, trips and falls heat stress, machine guarding and pedestrian safety

This new feature guides the bulk box onto the conveyor for proper alignment

Steve Pope: Syngenta Seed - 300 American Ave. – Jefferson, IA 50129
Steve.pope@syngenta.com
Phone (515) 386-8121 ext. 119

Before

After

Before: The bagger that puts seed into paper bags is relatively old, therefor lacking some safety equipment. These 2 doors are made of Plexiglas and can be opened while the product is being packaged into the bags.

After: The local electric company was contacted about adding a safety device to the bagger doors. These devices were put on each door. With the door shut the bagger will remain operating. Once the wheel on the safety devise reaches a certain point, it will stop all mechanical/moving parts of the bagger. This prevent employees from accidently or deliberately opening the doors and entering the bagging machine.

Pre-fabricated underground duct banks were implemented to improve safety for this particular job task. Instead of workers assembling duct banks in a trench, pre-fab areas at a separate location are utilized to build and assemble the duct banks in a worker-friendly environment. Once completed, they are transported and set into position with minimal work required to tie-together. This process greatly reduces time spent working in a trench where greater risk potential exists. By assembling in pre-fab, ergonomic conditions are also improved opposed to assembling on the ground in a trench. Weather conditions are much better inside a pre-fab tent or building and access/ground conditions are optimal. Overall, the pre-fab duct banks eliminate many risk factors and great injury potential while resulting in the same product at completion.

Lifting hazard, back injury.

Photo of hazard may be inserted here

Following the successful implementation of the vacuum lift at our Eldora facility last year we followed up with a similar implementation for our Iowa Falls facility. The vacuum lift picks up boxes of two 2 ½ gallon containers and stacks them on a pallet with minimal effort. The boxes will weight between 50 – 55 lbs per box. Very important safety factor with repetitive lifting, regardless of an employees age but especially important with an aging workforce.

Employees had to manually pick up a 60 lbs. (Tombstone) and transport it the fixture. Ergonomically designed handle to pull the Tombstone from the pallet on to a portable lift-table that will be used to raise the Tombstone into place.

Before

After

Employees were tasked manually picking up a 75 lbs. steel plate and setting it into place to be welded. A design change was made to attach a small steel plate where a temporary swivel hook could be attached. The steel plate is now picked up by an overhead crane where the employee just needs to guide the plate into place for welding.

Before

After

Employees would thread the piston onto the rod manually for 5” requiring repetitive motion of the wrist, elbow and shoulder.

A $2.00 tool was manufactured where a ¾” socket could be attached to use an air impact driver

Slip/trip over pipe placed directly in walking path.

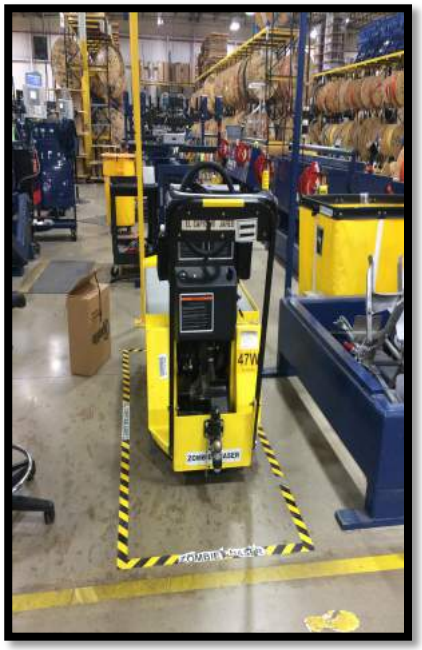
A walkway was fabricated to prevent people from having to step over the pipe. The walkway also directs or signals employees to cross over it at that point, versus stepping over the pipe. The pipe was also marked with orange X's and cones were placed in front of the pipe to alert people of the hazard.

•**Hypothermia during hole watch when entering confined space. Fatigue due to elements may also be a hazard depending on wind speed and precipitation.**

Wind shelters prevent the elements from directly coming into contact with the hole watch

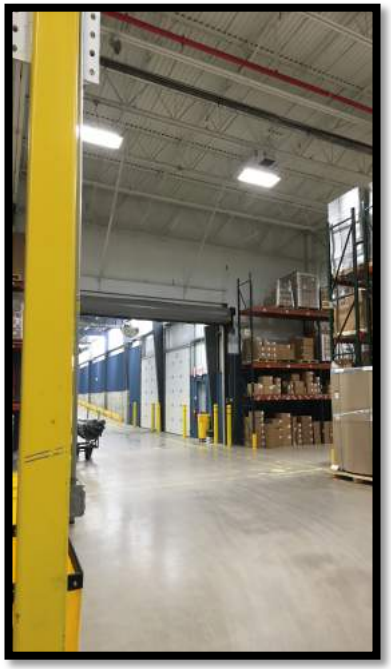
Problem (Before)

Solution (After)

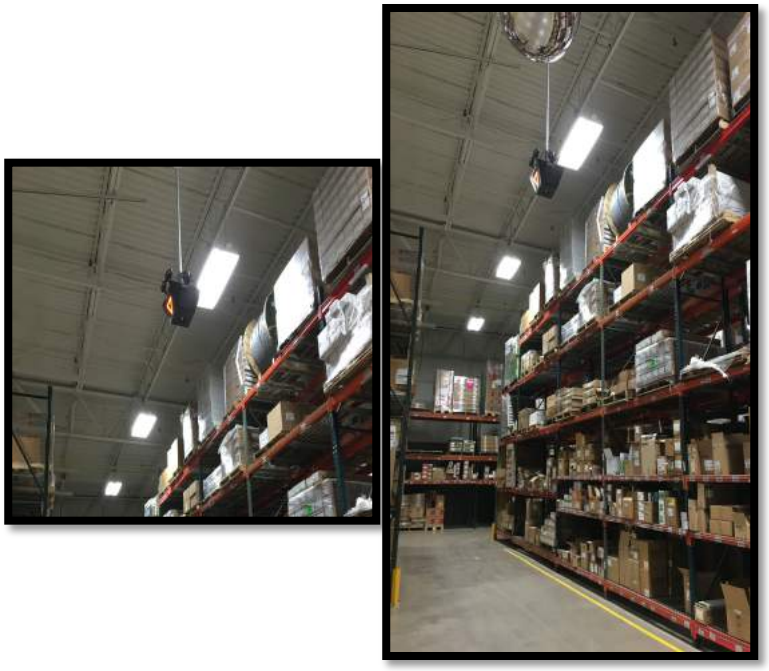


Forklifts are heavily used in our warehouse; however, when they are not in use they could be found in the way causing trip hazards or traffic accidents. As you can see in the picture they were “parked” where they were last used, most of the time in the middle of the product shelves. In the spirit of safety the Wire team painted parking spots to keep the forklifts and pallet riders out of the way and easy to locate. Other departments also noticed the improvement. For example, when a delivery of pipe comes in they were having to maneuver around the un-parked forklifts, now they find it much easier to unload and transport the pipe and solar products.

Before (Problem)



After (Solution)



Pedestrian traffic and forklift traffic are heavy at this crossing in our warehouse. The heavy traffic increases the likelihood of a dangerous accident. To improve the safety of all involved, we installed a “Rite Hite Lite.” This product is one of a kind. We worked with a customer to produce this and put in our warehouse. This light notifies the other sides when there is traffic coming from other directions. In the picture there was traffic coming from the right, so the sign was lit on the left. When there is traffic coming from both/all directions, the sign lights up **red** to notify everyone to stop.

Accident Reporting

- In mid 2015, Windsor added an additional identifying report to help recognize and eliminate hazards that may lead to recordable injuries. A Potential Hazard Report was added as the new step.
- Windsor implemented a **3 step** Incident Reporting Procedure (Forms included):
  - Potential Hazard: Report a potential hazard that is associated with a workplace condition or activity, which if left uncorrected, may result in a near miss or injury to employee.
  - Near Miss: Report is when incident actually occurred but did not become a recordable or have property damage.
  - Recordable Injury/Property Damage – Action did occur that must be addressed and dealt with.

Potential Hazard/Near Miss Reports

WINDSOR WINDOWS & DOORS
A Weyerhaeuser Company

POTENTIAL HAZARD REPORT

OSHA defines a hazard as the potential for harm that is associated with a workplace condition or activity, which if left uncorrected, may result in a near miss or injury to employee. We must provide a safe workplace by taking necessary steps to identify and address potential hazards. It is everyone's responsibility to report and / or correct these potential hazards immediately. Please complete this form as a means to report potential hazards.

Department: _____ **Date:** _____

Time: _____ ⬭ **AM** ⬭ **PM** **Location:** _____

Describe the potential hazard:

_____

_____

Corrective Action Taken:

_____

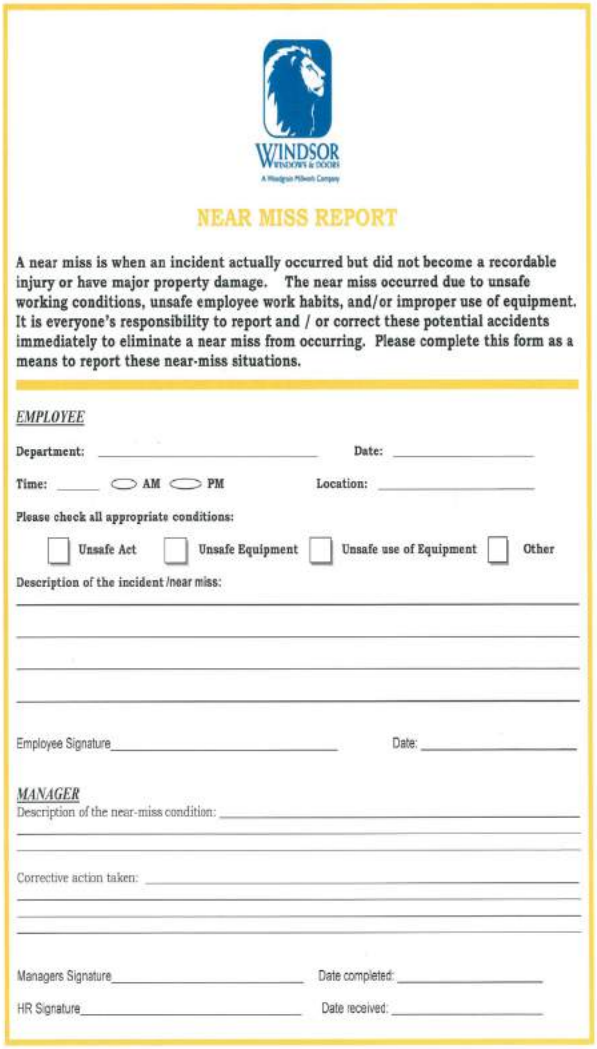
_____

Employee Signature_____ Date: _____

Managers Signature_____ Date completed: _____

HR Signature_____ Date received: _____

PRIDE Award Distributed: _____



WINDSOR WINDOWS & DOORS
A Weyerhaeuser Company

NEAR MISS REPORT

A near miss is when an incident actually occurred but did not become a recordable injury or have major property damage. The near miss occurred due to unsafe working conditions, unsafe employee work habits, and/or improper use of equipment. It is everyone's responsibility to report and / or correct these potential accidents immediately to eliminate a near miss from occurring. Please complete this form as a means to report these near-miss situations.

EMPLOYEE

Department: _____ **Date:** _____

Time: _____ ⬭ **AM** ⬭ **PM** **Location:** _____

Please check all appropriate conditions:

☐ **Unsafe Act** ☐ **Unsafe Equipment** ☐ **Unsafe use of Equipment** ☐ **Other**

Description of the incident /near miss:

_____

_____

_____

_____

Employee Signature_____ Date: _____

MANAGER

Description of the near-miss condition: _____

_____

_____

Corrective action taken: _____

_____

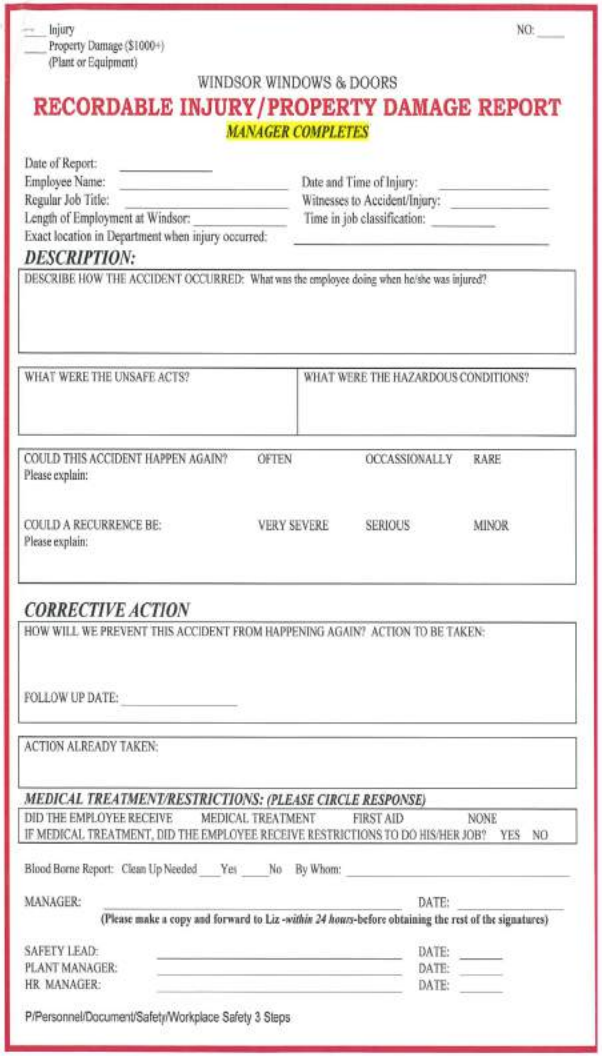
_____

_____

Managers Signature_____ Date completed: _____

HR Signature_____ Date received: _____

Recordable Injury/Property Damage Report



___ Injury
___ Property Damage ($1000+)
(Plant or Equipment)

NO: ____

WINDSOR WINDOWS & DOORS

RECORDABLE INJURY/PROPERTY DAMAGE REPORT

MANAGER COMPLETES

Date of Report: _____
Employee Name: _____ Date and Time of Injury: _____
Regular Job Title: _____ Witnesses to Accident/Injury: _____
Length of Employment at Windsor: _____ Time in job classification: _____
Exact location in Department when injury occurred: _____

DESCRIPTION:

DESCRIBE HOW THE ACCIDENT OCCURRED: What was the employee doing when he/she was injured?

WHAT WERE THE UNSAFE ACTS?	WHAT WERE THE HAZARDOUS CONDITIONS?

COULD THIS ACCIDENT HAPPEN AGAIN? OFTEN OCCASSIONALLY RARE
Please explain:

COULD A RECURRENCE BE: VERY SEVERE SERIOUS MINOR
Please explain:

CORRECTIVE ACTION

HOW WILL WE PREVENT THIS ACCIDENT FROM HAPPENING AGAIN? ACTION TO BE TAKEN:

FOLLOW UP DATE: _____

ACTION ALREADY TAKEN:

MEDICAL TREATMENT/RESTRICTIONS: (PLEASE CIRCLE RESPONSE)

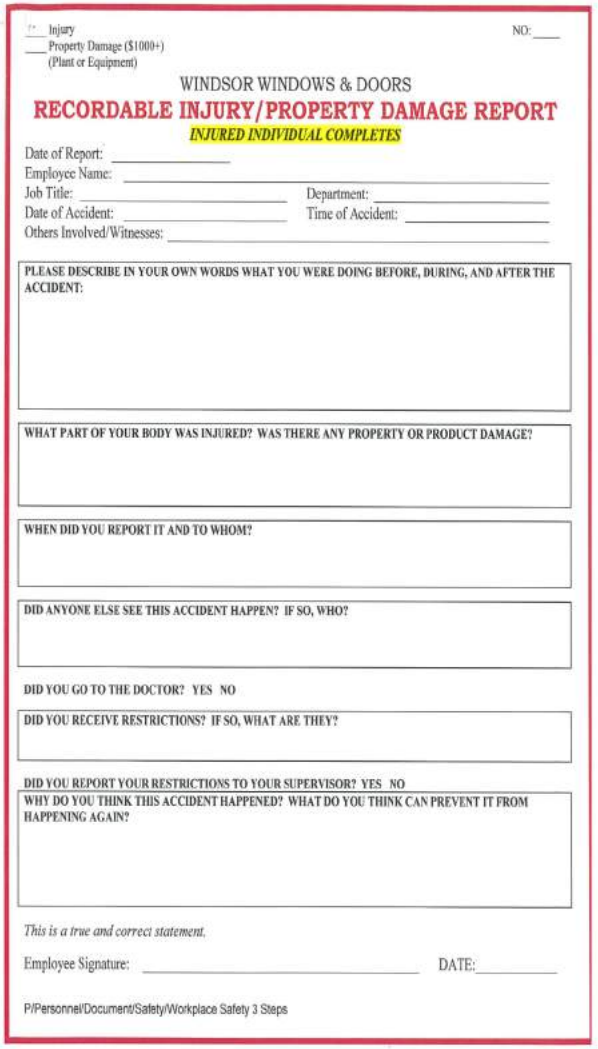
DID THE EMPLOYEE RECEIVE MEDICAL TREATMENT FIRST AID NONE
IF MEDICAL TREATMENT, DID THE EMPLOYEE RECEIVE RESTRICTIONS TO DO HIS/HER JOB? YES NO

Blood Borne Report: Clean Up Needed ___Yes ____No By Whom: _____

MANAGER: _____ DATE: _____
(Please make a copy and forward to Liz -*within 24 hours*-before obtaining the rest of the signatures)

SAFETY LEAD: _____ DATE: _____
PLANT MANAGER: _____ DATE: _____
HR MANAGER: _____ DATE: _____

P/Personnel/Document/Safety/Workplace Safety 3 Steps



___ Injury
___ Property Damage ($1000+)
(Plant or Equipment)

NO: ____

WINDSOR WINDOWS & DOORS

RECORDABLE INJURY/PROPERTY DAMAGE REPORT

INJURED INDIVIDUAL COMPLETES

Date of Report: _____
Employee Name: _____
Job Title: _____ Department: _____
Date of Accident: _____ Time of Accident: _____
Others Involved/Witnesses: _____

PLEASE DESCRIBE IN YOUR OWN WORDS WHAT YOU WERE DOING BEFORE, DURING, AND AFTER THE ACCIDENT:

WHAT PART OF YOUR BODY WAS INJURED? WAS THERE ANY PROPERTY OR PRODUCT DAMAGE?

WHEN DID YOU REPORT IT AND TO WHOM?

DID ANYONE ELSE SEE THIS ACCIDENT HAPPEN? IF SO, WHO?

DID YOU GO TO THE DOCTOR? YES NO

DID YOU RECEIVE RESTRICTIONS? IF SO, WHAT ARE THEY?

DID YOU REPORT YOUR RESTRICTIONS TO YOUR SUPERVISOR? YES NO

WHY DO YOU THINK THIS ACCIDENT HAPPENED? WHAT DO YOU THINK CAN PREVENT IT FROM HAPPENING AGAIN?

This is a true and correct statement.

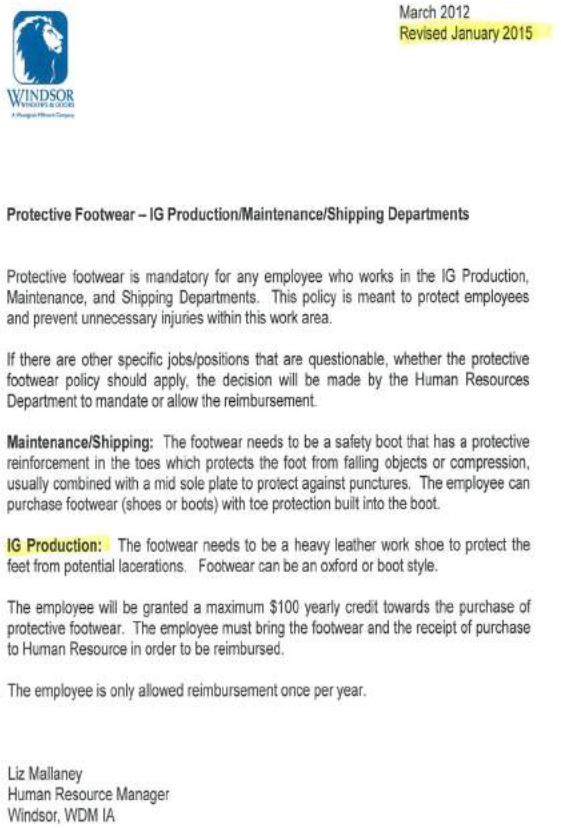
Employee Signature: _____ DATE: _____

P/Personnel/Document/Safety/Workplace Safety 3 Steps

2015 Footwear Policy for Glass Production

(Improved Personal Protective Equipment for Employees)

Footwear Policy for IG/ Glass Production was added in 2015. With the hazards of handling glass and knowing that employees wear cut resistant PPE, it was noted that the feet of the employees needed to be covered with more than a canvass tennis shoe. Hence, the new footwear policy for this department.



March 2012
Revised January 2015

WINDSOR

Protective Footwear – IG Production/Maintenance/Shipping Departments

Protective footwear is mandatory for any employee who works in the IG Production, Maintenance, and Shipping Departments. This policy is meant to protect employees and prevent unnecessary injuries within this work area.

If there are other specific jobs/positions that are questionable, whether the protective footwear policy should apply, the decision will be made by the Human Resources Department to mandate or allow the reimbursement.

Maintenance/Shipping: The footwear needs to be a safety boot that has a protective reinforcement in the toes which protects the foot from falling objects or compression, usually combined with a mid sole plate to protect against punctures. The employee can purchase footwear (shoes or boots) with toe protection built into the boot.

IG Production: The footwear needs to be a heavy leather work shoe to protect the feet from potential lacerations. Footwear can be an oxford or boot style.

The employee will be granted a maximum $100 yearly credit towards the purchase of protective footwear. The employee must bring the footwear and the receipt of purchase to Human Resource in order to be reimbursed.

The employee is only allowed reimbursement once per year.

Liz Mallaney
Human Resource Manager
Windsor, WDM IA

New Position – Safety Lead

- Effective February 2015, Windsor added a new position as Safety Lead. Position was created to elevate safety at Windsor Windows & Doors and work with department managers and employees on a daily basis with the idea of safe production in the forefront. The position creates presence with safety guidance and encouragement on the shop floor.
  - Job Description attached
  - Safety Lead is working towards the Safety Certification from Iowa Illinois Safety

Safety Lead Job Description

WINDSOR
Excellent Choice

JOB DESCRIPTION
Windsor Windows & Doors
900 S.19th Street/2210 Stafford St. Ext.
West Des Moines, IA 50265/Monroe NC 28110

Job Title: Safety/Training Lead

Department: Human Resources

Prepared by: HR Department **Status:** Factory Hourly

Date effective: 01/01/2015 **Date reviewed:** 12/29/2014

Purpose of Job:
Individual will work to elevate safety at Windsor Windows & Doors and work with department managers to update SOP's, their training for employees, maintaining any employee records and following up on new hires periodically to ensure they are being supported by management to succeed at their jobs. Individual will also support operations projects as needed that relate to employee safety, productivity, and quality.

Working Relationships:
Reports to (Job Title): Human Resource Manager and will work closely with Plant Manager, Maintenance, and Department Manager's.
Direct Communication with: All department employees, managers, coordinators, and vendors.

Primary Responsibilities and Frequency:

- Lead by example with regards to safety and training in the workplace
- Key employee to enforce continuous improvement for Safety
- Manage compliance to safety policies established by the company.
- Suggest necessary or relevant safety policies for approval; with an understanding of industrial guidelines needed for OSHA compliance.
- Be pro-active with safety and training needs within the facilities.
- Work directly with plant manager to insure 5S audits are completed in departments and that proper improvements are determined and follow action is taken.
- Complete safety audits in both facilities within the designated time frames.
- Approve new equipment for safety and confirm labeling and markings are good before equipment is used on shop floor. Further ensuring that suitable training has been provided for associates to run such equipment.
- Be the lead for the safety committee and follow through on issues presented to the committee
- Manage the success of the training initiative; ensuring SOP's and on the job training is kept up to date.
- Coordinate and participate in safety training for employees
- Participate in department start up meetings with a "presence for safety"
- Coordinate and participate in providing feedback to manager's on non-compliance related to training activities and steps to be taken to correct compliance .
- Coordinate and complete safety updates as needed – ex. SDS sheets, LOTO boards, etc.
- Be responsible for upkeep of first aid cabinets, supplies, and fire extinguishers
- Evaluate any safety incidents and use corrective action as needed
- Evaluate job positions and eliminate hazards (Job Safety Analysis)
- Work with all employees to improve processes and eliminate waste
- Evaluate daily issues, analyze information, and report any necessary findings
- Update and develop any spreadsheets and/or communications needed
- Assist with any other needs relating to the process control, training program and safety of the company
- Become a "trainer" with regards to in-house training, certifications, and licenses

Working Conditions:
Factory (dirt/dust, equipment hazard, temperature exposure, chemical exposure, and work pace/pressure); and will have access to office equipment
6:00 a.m. to 2:30 p.m., Monday - Friday
* These are the base shift hours and subject to change due to business conditions. Mandatory overtime will be on an as needed basis.

Equipment Used to Perform Job:
INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
Computer, calculator, copies, fax, telephone, and radio, tape measure, line equipment, fork lift truck, small hand tools

Skills and Abilities Required to Perform Job:

- Self starter, energetic, and compassionate about Safety
- Good verbal communication and interpersonal skills presenting a positive representation of the company
- Ability to drive and lead change
- Attention to detail and knowledge of Windsor workings
- Understand written or verbal instructions with the capability of accepting responsibility for interpretation and/or problem solving.
- Good analytical skills
- Fluent with Microsoft Word and Excel
- Provide input and advise others as necessary to determine needs and/or problems and then develop solutions
- Able to follow direction and stay on task
- Able to prioritize and complete projects on deadline

Minimum Requirements to Perform Job

Minimum Education Required:

High School/GED degree required
AA Degree/ or equivalent experience preferred

Minimum Experience/Training Required:

Previous work related experience (OR)
Minimum of 12 months Windsor experience required.

Physical Requirements and Visual Demands:

Frequent standing and walking. Occasional bending, turning and twisting at waist. Occasional sitting, climbing, and kneeling. Occasional lifting, carrying, and pushing/pulling (up to 50 lbs.). Occasional use of hearing. Use of computer and office equipment.
Visual requirements necessary are far, near, color, and field of vision, mid-range, and depth perception.

New Employee Safety Training

As Windsor grows, safety training was developed for all new employees with the Safety Lead. A safety training room has been created for this purpose. Employees use saws and power hand tools off the production lines. This gives employees one on one training emphasizing any hazards that are present.

New Equipment To Eliminate Hazard

New router was added to the ND Pro Vinyl Line to eliminate the use of razor blades for this process. Whenever possible, Windsor wants to eliminate the use of blades which causes lacerations which leads to recordable incidents.

Machine Guarding Improvements

Additional guarding added to eliminate opening where hands could enter.

Machine Guarding Improvements

Covered hole opening for additional guarding.

Planer Replacement

Old Planer

"Spiral tooling" in new planer reduced noise levels by over 30 dB. Parts require less manual sanding after going through new planer, saving stress to shoulders, hands, and wrists.

Electronic settings make it easier and faster to set up. Faster feed rate increases productivity without sacrificing employee safety due to rushing.

New Planer

Miter Saw Table Improvement

Before – Miter saw has short fence, requiring two to three employees to hold the long parts being cut. Potential for part to slip and cause cuts to employees. Accurate cuts were often difficult to attain.

New fence is much longer and easier to hold parts against, eliminating the need for multiple employees to hold long parts for cutting. Provides more accurate cuts and is safer for employees.

Stapling Mirror Frame Corners

Old way was awkward and often required two employees because of little support for the piece. Required employee to sometimes get close to the point of operation.

New table (left) allows one employee to control the mirror and frame from a much more comfortable and stable position.

Spoil Board Containment

Spoil boards used on CNC routers were stored wherever there was room, causing housekeeping eyesore and potential tripping hazards or injuries from boards falling over or slipping down.

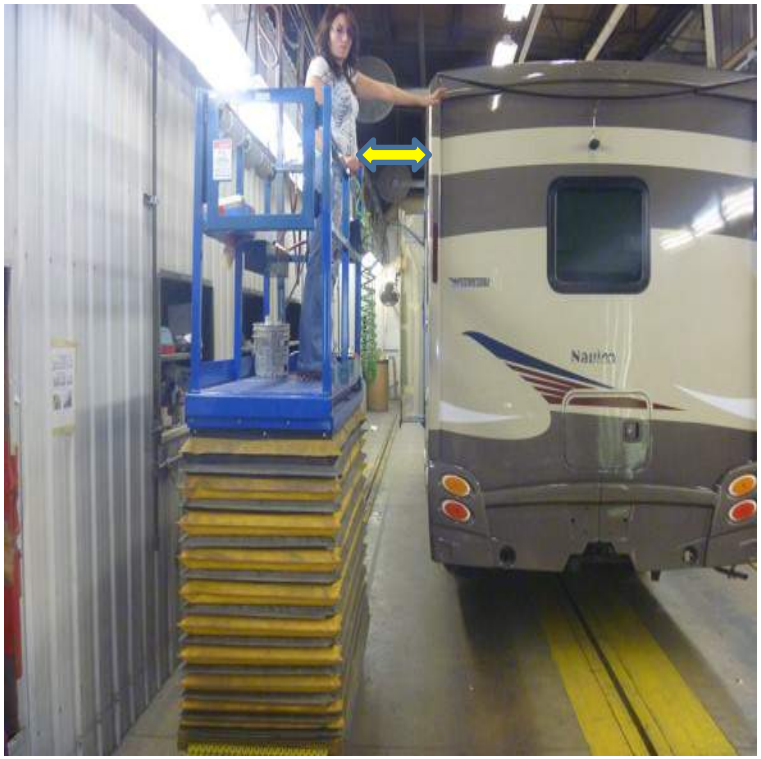
New containment racks keep spoil boards neatly stacked and protected against damage, as well as eliminating tripping hazards.

Unused Rail and Ramp Removed

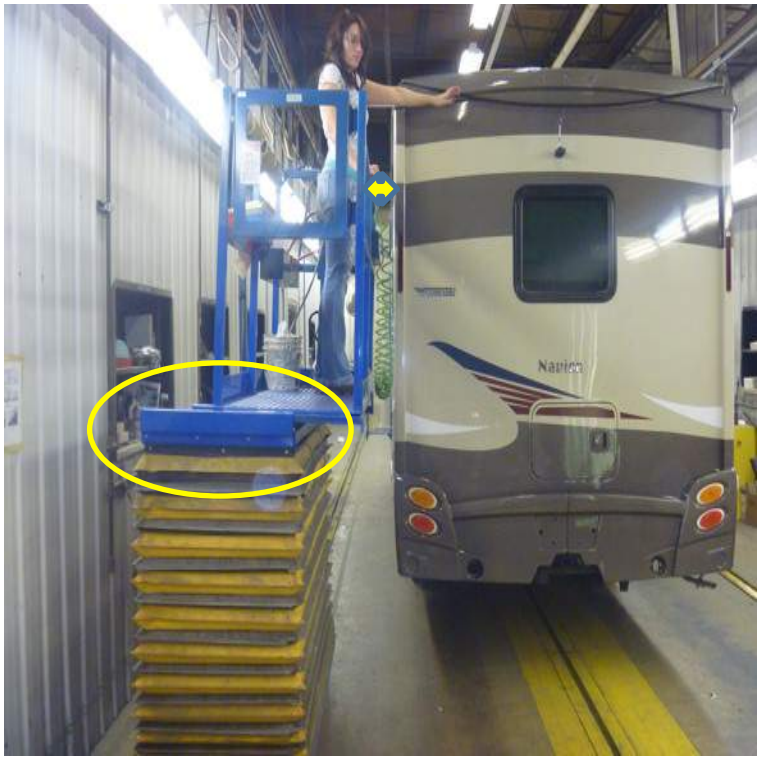
The floor rail had been unused for several years. A ramp had been built for transporting carts over the rail. This was a trip hazard and created limited access to the area.

Removing the rail and ramp opened up the area, allowing better access and eliminating a trip hazard.

Retractable Platform on Scissors Lift



Scissors lift provided vertical height adjustment, but no lateral adjustment to get employees closer to their work, creating strains from reaching and applying force.



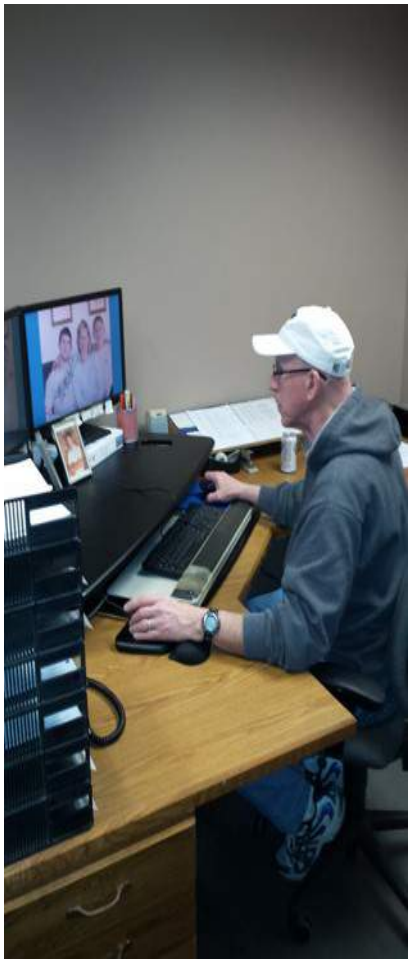
Adjustable platform now allows lateral movement to get employees closer to their work, relieving strains from reaching and using excessive force.

Eliminated Extension Ladder

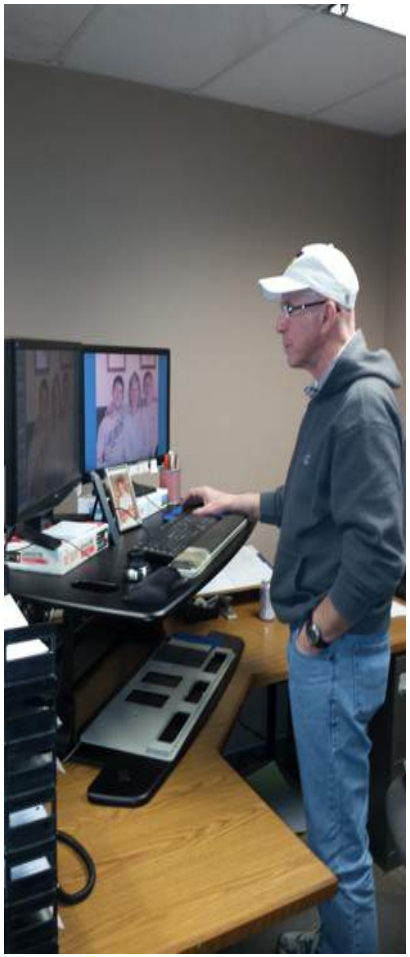
16’ foot extension ladder was used for getting samples from equalization tank in e-coat waste treatment process. Required climbing to top of tank with one hand while holding onto sampling tools with another.

Piping and valve were installed to allow samples to be taken at ground level, eliminating use of ladder.

Sit/Stand Workstations Offer Relief from Sitting Throughout the Day in Office Environments

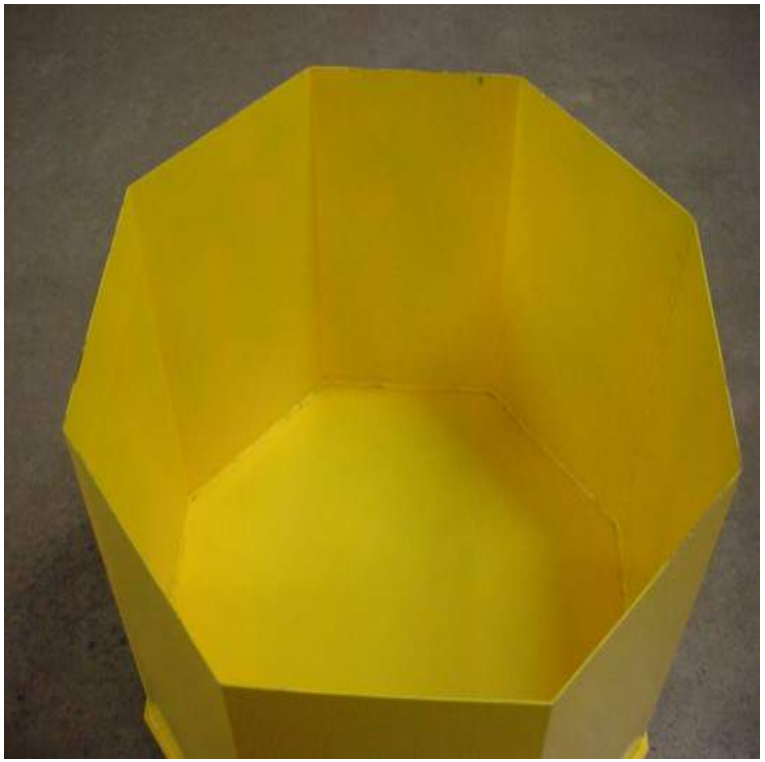


Sitting



Standing

Steel Flammable Liquid Containment Carts Allow Mobility, Protect Drums from Damage, and Contain Leaks



Lifting device replaces manual lifting of shower stalls onto floor of motorhome. This was a two- to three-person operation. Now a one-person job with no lifting.

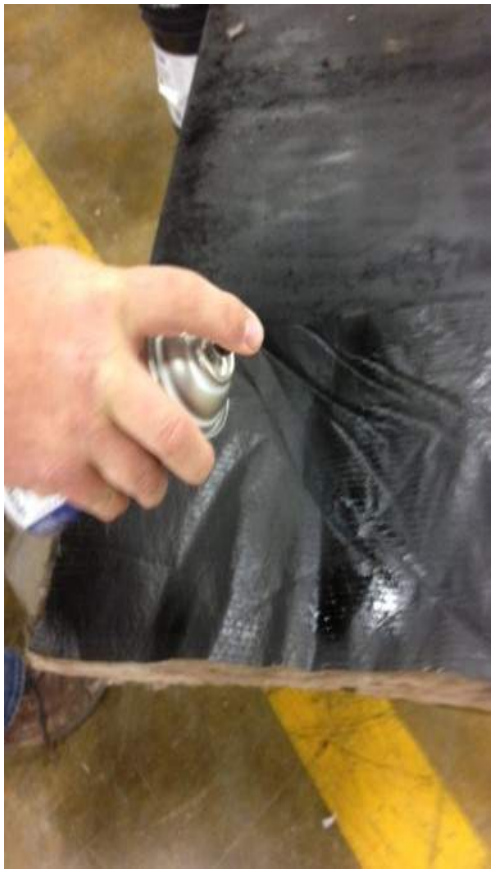
Shower Sta

Caulk Gun Upgrade

Old Way – Manual Caulk Gun strained hand, wrist and forearm. Made consistent bead difficult.

New Way – Battery-powered caulk gun eases stress, is easier to guide, and provides better quality bead.

Spray Can Handle/Trigger



Old way requires finger to push button of can to release contents. Material got on fingers and was difficult to control spray.

New trigger/handle allows full-hand pulling action and initiation of spray, making spraying easier and more accurate.

LP Tank Storage

Old LP tank storage unit was damaged and difficult for employees to access.

New storage unit is easier to access and meets compliance standards.

Nibbler vs. Sawzall

Old tool for cutting out window openings on B-Van – models of motorhomes was a Sawzall-type tool which vibrated heavily, causing strains to hands, wrists, and arms. It was also very noisy and left jagged edges behind that posed cut hazards.

The new tool is a “nibbler” tool, which is much lighter, quieter, has much less vibration, and leaves a clean cut without jagged edges.

Roof Scaffolding Improvement

Old scaffolding had steep, overlapping steps and was difficult to maneuver.

New scaffolding has safer stairs, is lighter weight, is easier to maneuver, and gives employees better access to their work.

Manual Packing Line converted to a totally Robotic Auto Pack Packing Line

Before

Workers once packed chocolate bars by hand into cases. Several safety issues related to ergonomics caused injuries. Robotic machines were designed, built and installed to pack the chocolate bars utilizing robotics relieving workers the risk of wrist and joint injuries.

After

World's Finest CHOCOLATE

Lift Truck Safety Improvements

LED Tracking lights were installed to lift trucks to warn workers of approaching vehicles in the area

Required PPE's were miss placed at times, a shadow tool board was built to provide visual and proper storage of battery inspection tools

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Improved Traffic Safety

Employees and Visitors park on the parking deck which holds 400 cars. At the bottom of the ramp from the parking deck, vehicles need to stop. The old stop sign was difficult to see. A new powerful LED stop sign was installed supporting a huge safety improvement.

Old STOP sign

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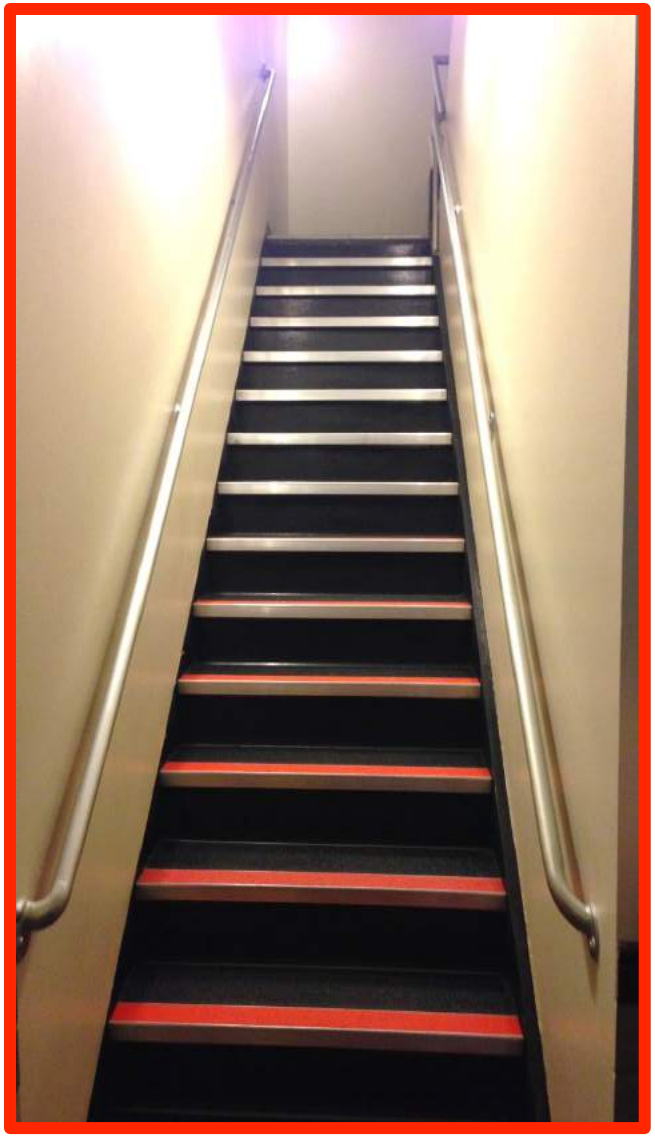
Stairway Safety Improvements

Hundreds of workers, contractors and visitors use the stairway to the parking deck. The stairs were worn out, lighting was poor and the walls needed to be painted. Aluminum extruded steps with built in slip resistant tread materials were installed, lighting was improved and the walls painted a brighter color.



After

Packaging Safety Improvements

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At times, packaging operators would need to clean packaging equipment . The glue heads where exposed and operators worked very close to them. To avoid contact and probable injuries, shields were fabricated and installed to cover the 350 degree glue heads protecting the operators.