Muscatine Power & Water-Muscatine, IA

Track Bar

Description of Before

We would have three people working to get the track back on. Two were using pry bars and one to rotate the drive. This took a long time to complete and was physically demanding.

Description of After

We purchased a tool that was designed to help operators working alone in the field to reinstall tracks that had popped off the idlers, and it turns a difficult and time-consuming task into a job that can be done in 15 minutes by a single person.

Muscatine Power & Water– Muscatine, IA

Safety Mirror

Description of Before

Employees come around the corner left or right and have run into one another holding coffee or documents etc.

Description of After

We put mirrors up so the employees can see the blind corner and may avoid a collision with one another.

GROWMARK Fertilizer Terminal – Chesapeake, VA

Swing gate installations

At time of purchase, this terminal had no swing gates at the top of ladders that access catwalks.

A total of thirteen swing gates were purchased and installed.

GROWMARK Fertilizer Terminal– East Liverpool, OH

Catwalk and guardrail repair

Roof leaks and water intrusion caused damage to catwalks and guardrail systems used to support workers while performing maintenance on the conveyor.

The guardrails and catwalk walking surface were replaced.

GROWMARK Lubricants Plant– Pipestone, MN

Eyewash Installation

A new bulk storage and repackaging system for lubricants was added to the facility. An eyewash was installed to allow for flushing of the eyes if a splash occurs.

GROWMARK Alpha Distribution Center – Alpha, IL

Installation of fall protection anchorage

Occasionally, long and heavy materials for our grain bin construction arrive on flatbeds and must be unloaded. Previously, workers stood on the flatbeds to help maneuver the equipment onto the forklifts, leaving them exposed to a fall greater than 4 feet.

A new rigid rail was installed to create an anchor point for workers to attach PFAS and prevent them from falling.

GROWMARK Arcola Tank and Truck Center – Arcola, IL

Walking surface/confined space entry repair

The old unused confined space entry became weathered and rotten. The location's manager noticed that it gave when weight was placed on it, which could result in a fall through to the pit below.

The cover was replaced with an appropriate material, painted, and labeled to identify it as a permit required confined space.

GROWMARK Tank and Truck Center – Arcola, IL

Driveway entry repaving

Driveway entry/exit surface material and condition required vehicles to move at a slow speed, increasing risk of collision with fast-moving highway traffic

Driveway paved with concrete.

GROWMARK Dry Fertilizer Terminal – Saint Louis, MO

Electrical improvements

Electrical system cabinets, housing, and conduit had become corroded from exposure to potash, creating potential for contact. Electrical panels, a transformer, and conduit were replaced.

GROWMARK Distribution Center-- Farmville, NC

Fall protection improvement

When this facility was purchased, no fall protection was present at the dock.

Guardrails were purchased and installed.

GROWMARK Flight Operations – Bloomington, IL

Guarding and warning

Static wicks are long thin extensions used to discharge static electricity during flight. When the plane is on the ground, these wicks are not noticeable, and someone can easily walk into them.

Static wick covers were purchased to both cover the wicks and alert those walking by of their presence.

GROWMARK Fertilizer Terminal – Seneca, IL

PPE improvement

Barge operations require workers to cross over water and onto the barges. Fall protection systems and flotation vests have always been provided, but the awkward wear of the harnesses and vests and visibility of a worker in the water were concerns.

New high visibility floatation vests with integrated fall protection harnesses were purchased.

UNI's University Housing and Dining Safety Committee has been working on a lot of different storage rooms, both cleaning them up, marking the floor in front of panels, and organizing them. These new floor markings help prevent items from being stored in front of electrical panels.

UNI's Facilities Management Safety Committee worked to resolve a safety concern related to electrical arcing that was occurring in the metal work space around outlet stations. After equipment was plugged into the electrical outlets, it was discovered that if the plugs became loose and left a small gap between the plug and electrical outlets, fine metal particles would rest on the prongs of the plug. When the plug was corrected by pushing it farther into the outlet the fine metal particles resting on the plug would then create the electrical arcing issue. To help resolve this safety concern custom made outlet covers were made by the carpenter shop that would help keep out the fine metal particles that would gather on top of the plug to stop the electrical arcing from occurring.

UNI's Lab Safety Committee has been working to clean and organize lab spaces on campus. Below is a laboratory where a considerable amount of combustible material, electrical hazards, and unlabeled chemicals were removed.

A rotational molder was purchased from a supplier, but upon arriving to campus it didn’t have labels, a manufacturer name plate, UL listing, or any type of marking. Other safety issues were noted such as sharp open edges and corners. UNI’s Applied Engineering & Technical Management Safety Committee worked with the supplier to return the molder.

UNI's Environmental Health & Safety Team has been working with individuals across campus to ensure that doors with a closing device are not improperly propped open. This has included sending an email to all department heads, removing door wedges, and engaging in meetings with individuals across campus. Examples have included doors being propped open with chairs and door wedges.

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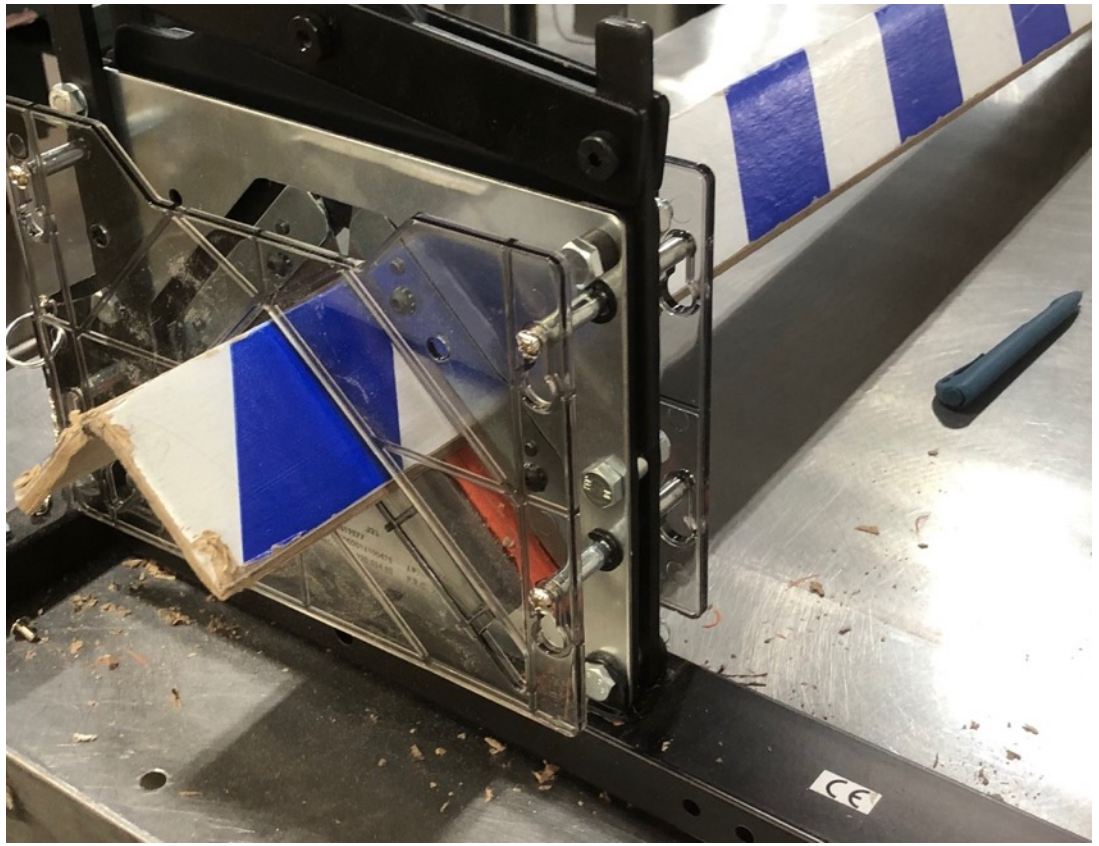
Ergonomic Improvement

Operators used to bend take cardboard off of a pallet, place it on the side table in stacks, then bend down and reach to load the machine a couple hundred times a day. Now operators have a rotating lift table that cuts out most of the reaching, bending, and lifting.

Cutting Hazard Eliminated

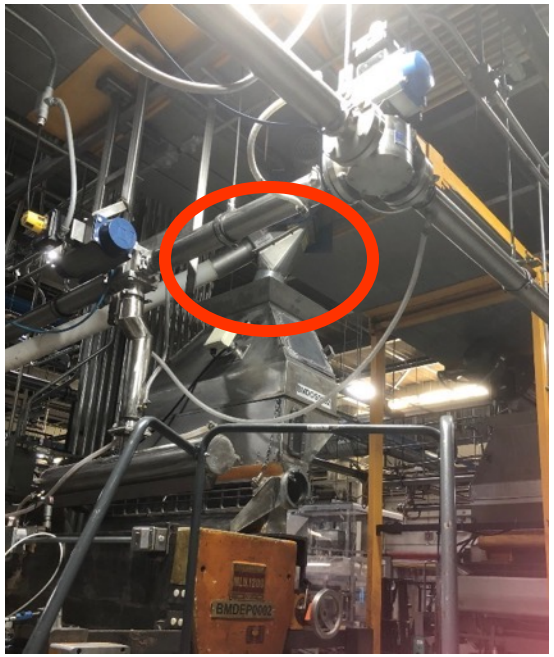
When previously running some smaller volume skus, we would have maintenance cut pallet wrap corners down to the size we needed them.

A corner cutter was purchased and eliminated the need for using a powered saw.



Fall Risk Reduced

Operators used to clean and remove the top of the screw by using a scissor lift through a hard to maneuver area, leaning over, while trying to remove the sleeve. We built a platform right up against the machine, so operators don't have to strain, step and lean over in places that could leave them unstable.



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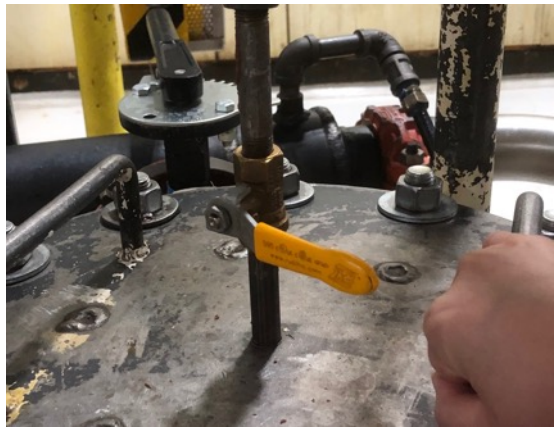

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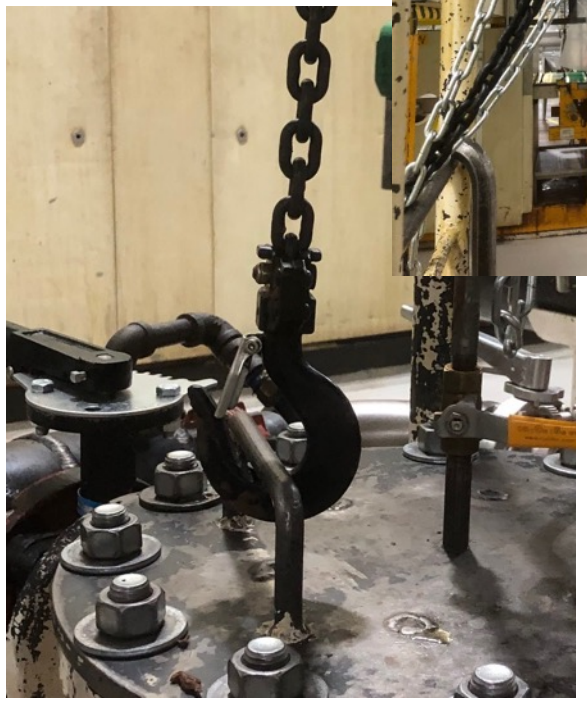


We used to use a team lift to take off the filter cover and filter inside. The lid was difficult and taking the filter out often was pulling against a vacuum. We purchased a hoist that takes the strain off the operators. They now use the hoist to take off the heavy lid and pull out the filter.

Hoist Installed

Covid 19 Pandemic Response

Concern

- As an essential industry, Barilla manufacturing processes required certain staff to be on site and interact in order to sustain operations and feed the public. The CDC developed a list of recommendations that encouraged essential industry and the public at large on how to slow the transmission from person to person but each site had to assess them and implement.

Response

The site and corporate pandemic response teams worked across departments and cross functional teams to perform a comprehensive analysis that assessed:

- Traffic and Process flow patterns, and potential daily interactions between staff, contractors, and visitors that could occur on site to prioritize activities based upon its impact and risk profile.
- Activities that could be done remotely versus required on site presence which led to a reduction
- The site worked with Story County Medical Center and hosted and on site Covid Vaccine clinic in late March 2021 for all shifts to promote staff being vaccinated and reached 70% vaccinated threshold in early spring.

This analysis lead to:

- Implementing measures and allotting extra time and resources such as in person pre-shift and pass down meetings and staggering when people reported to their workstations in order to ensure that people had sanitized their workstations and leaving the area prior to the next shift reporting and performing their pre-start up sanitization of those same areas before start up.
- Updating and implementing aggressive personal work station sanitation protocols to prevent transmission from shared work stations,
- Simplifying and streamlining production schedule to reduce complexity in order to reduce interventions and interactions of multiple people that typically occur during size and line changes.
- Providing Intensive training and communication tools to educate the work force to adopt and follow safety measures that either met or exceeded CDC guidelines.

Benefits

- Provided a safe work environment for our people to produce essential goods for our community
- Empowered staff to come up with innovative methods to perform their role either remotely or on site without compromising their wellbeing or others.
- Fulfilled Barilla’s commitment to promoting the wellbeing of our People, Planet, and the Community

Walking Working Surfaces-Platform Project

Concern

After a new processing line was commissioned in 2019, maintenance reported that certain overhead conveyors and equipment could not be easily accessed or serviced due the layout and so they had to rely on PPE and administrative controls to address the hazard. While the PPE addressed fall hazards, it did not address the ability to work on the equipment easily.

Response

Since then the site has created a prioritization matrix that allowed impacted teams to evaluate locations to install fixed platforms and walking surfaces to reduce the need to use mobile equipment and personal fall arrest as the primary safety control. This has allowed the impacted departments to brainstorm on solutions, prioritize, and be prepared when additional funding is available.

Benefits

- The final solutions engineer out the fall hazard with permanently fixed railing systems, negating the need to rely on PPE as the sole safety control.
- The fixed platform upgrades make it easier and safer to perform servicing and maintenance activities that don't rely on PPE compliance as the primary safety control to ensure personal safety.
- It reduces the time and resources required to perform these activities moving forward. The site uses the matrix as a means to raise awareness in order to identify and prioritize where similar conditions exist on site based on feedback from staff, and then score these areas so that the order of future installations is based on areas of greatest need, while ensuring other safety controls and practices are in use and adhered to in the interim. This builds a sense of ownership and teamwork within this cross functional team and general site population as they own the success and value the needs of other departments.
- It demonstrates Barilla's commitment to the safety and well being of team members while empowering them to identify issues and assist in prioritizing and resolving them.

Safety Incentive Program

Concern

There is a ongoing effort to engage personnel in identifying and correcting unsafe behaviors and activities in order to promote a proactive and safe work place.

Response

The site safety incentive program requires the following to be eligible:

Staff must complete and document at least one 15 minute safety walk every month. The safety walk are a blend of compliance based safety checklists and behavioral based questions that are intended for the persons performing the audit and being interviewed to discuss specific safety topics or issues in order to recognize safe and unsafe behaviors and engage at that moment.

Staff can increase their incentive payout by also performing and documenting LOTO audits, JSA reviews, or creating/revising new JSAs as part of an area or cross functional team depending upon the task.

Benefits

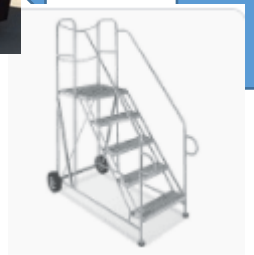
- It promotes positive engagement and activity versus reactionary results (i.e programs that require people to not have an injury to report). We have found that this increases the number of safety ideas generated or at least near misses/first aid potentials so we can address issues before anything has happened in order to raise awareness and eliminate unsafe conditions or behaviors.
- People are engaged and encouraged to address items when they are observed.
- Even as the site's population has swelled by 25% over the past 5 years the site has been able to hold steady and reduce its OIR and Lost time rates.

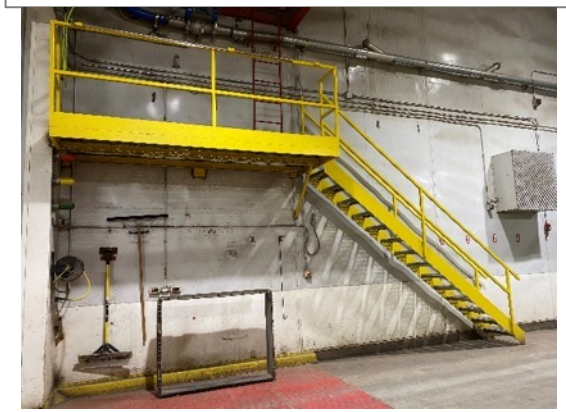
Dock Safety Improvements

Concern:

• Another plant had employee fall from rolling ladder and broke a hip when the semi tarp roller caught the ladder

Handle for tarp caught in ladder causing employee who was using an air wand to clean the trailer to fall to cement floor

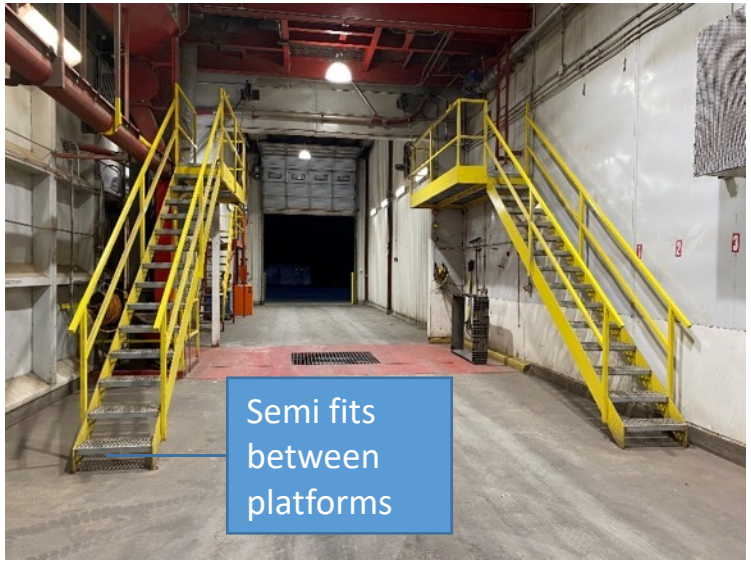




Improvement to eliminate this hazard at Renwick:

•Installed permanent platforms accessed by stairs on each side of bulk receiving building

•Employees are able to use compressed air to blow off trailers 100% out of the line of fire



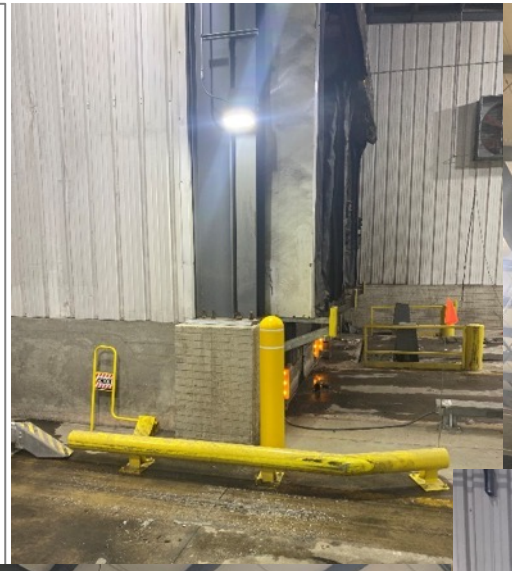
Dock Safety Improvements

Concern:

•After secondary truck restraint systems were installed, we received feedback from drivers that it was difficult to see when backing in between the tire guides, especially on bright sunny days.

Improvement:

- **Changed existing lights with regular bulbs to LED.**
- **Added additional LED lighting over each dock, on dock side walls and directly on restraints to ensure good visibility.**



Benefits: Increased Overall Safety At The Docks

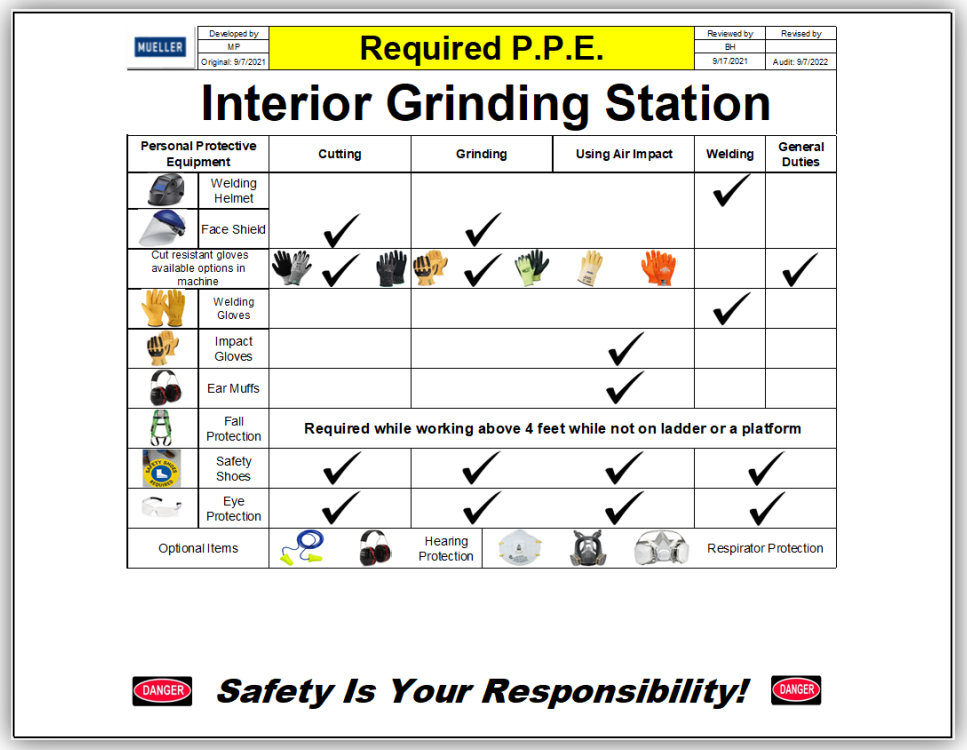
- The second truck restraint system addresses/prevents:
- Truck leaving docks before the loading/unloading process is completed. Now two different forms of restraint with lights for forklift operators and drivers to know safety status.
- Trucks not being secured as traditional chocks can slip on ice, sand, snow and be driven over.
- Trailer creep—situation where trailer “inches forward” away from the dock due to either impact of the forklift or a combination of air-ride suspension allowing the trailer to move forward.

Personal Protection Equipment Posters

This year PPE Posters were designed /implemented to ensure employees performing specific tasks can visually see what is needed to stay protected. Each work station has two styles of posters in their area.

One displays what the required P.P.E is for that station.

While the second shows what P.P.E should be worn while preforming each task at the station.

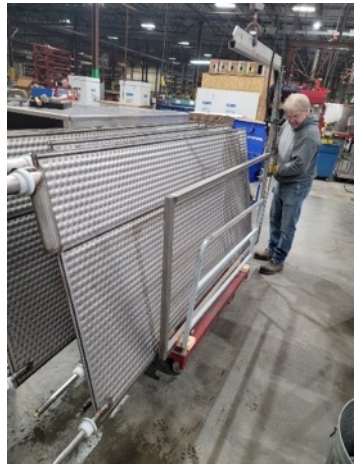


New Temp-plate lifting device

Old process

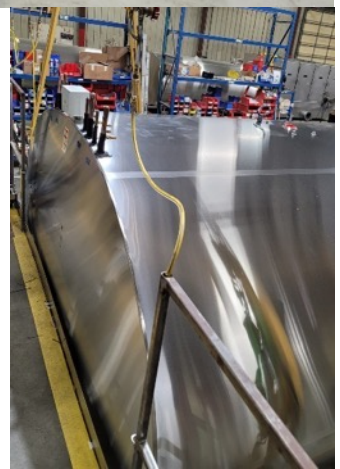
With the help of our team and engineers we were able to build a custom lifting device. Changing a process that took four plus people to a single employee operation.

We have reduced the risk of muscle strains, pinch points and fall hazards for our team.



New process

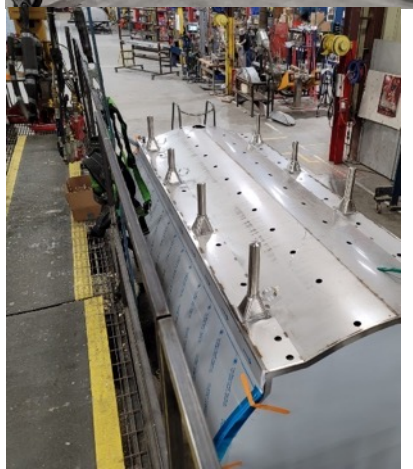
Working Platforms



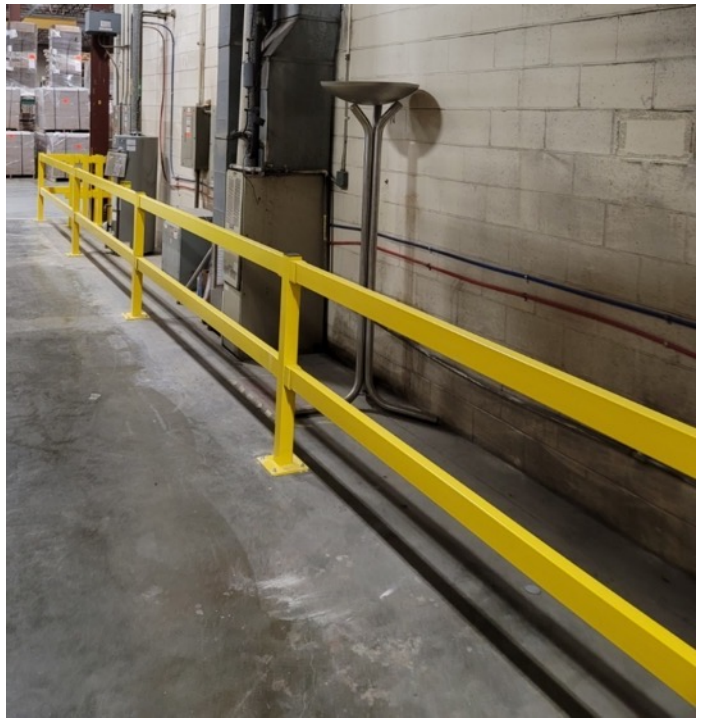
Our company is working diligently removing the need for ladders during production. Ladders are one of the leading causes of work related injuries.

With our new platforms, our employees are able to work in a single work area with out the need to climb ladders multiple times. This will reduce muscle strains, unsafe working habits and potential falls.

Our new platforms not only promotes safety but also productivity. Our team now has all their tools in a single area, which is designed for their specific job requirements.



Safety Railing

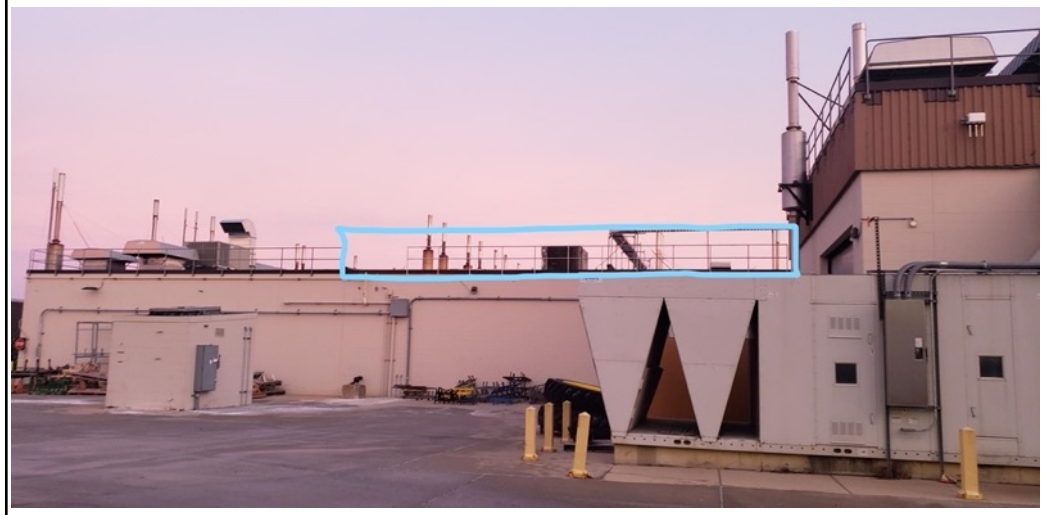


Our company has removed outdated chain barricades replacing them with updated solid railing.

This protects our team from our below level dock and protects equipment in high traffic fork truck areas.

John Deere Product Engineering Center/Cedar Falls, IA

Fall Risk Reduction

Before Photo	After Photo
	
Fall exposure existed on rooftops (leading edge) for maintenance work as well as routine exposure internally from using fixed ladders for equipment access lacking swing gates, railing, or not compliant with OSHA.	The project included adding rooftop railing and fixed ladder swing gates & mezzanine railing throughout the site inside and outside. This reduced risk from falls at the site.

Flint Hills Resources Algona, IA

Ergonomic Improvement

We use large, steel hoses to off-load truck tankers routinely. The hoses are heavy and awkward. Previously, we used a rope and pully to hang and drain hoses after the load was empty. This was an ergonomic risk, as well as a falling object risk if the rope broke.

We fabricated trays to lay the heavy hoses on after completing the unload. This is much easier on the worker and reduces the risk.

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FLINT HILLS RESOURCES DUBUQUE, IOWA

ERGONOMIC IMPROVEMENT

During the asphalt season, we install mats underneath the loading racks to catch any drips or spills from our loading process. We use silicone to attach the mats to the ground. Using a manual caulk gun, we used 15 to 20 tubes of silicone. This becomes strenuous on the hand squeezing the trigger of the caulk gun.

After doing some research on how we could accomplish this in a more ergonomically friendly way, we went with a battery powered caulk gun. This improved the process greatly and reduced the ergonomic risk.

Flint Hills Resources – Davenport, IA

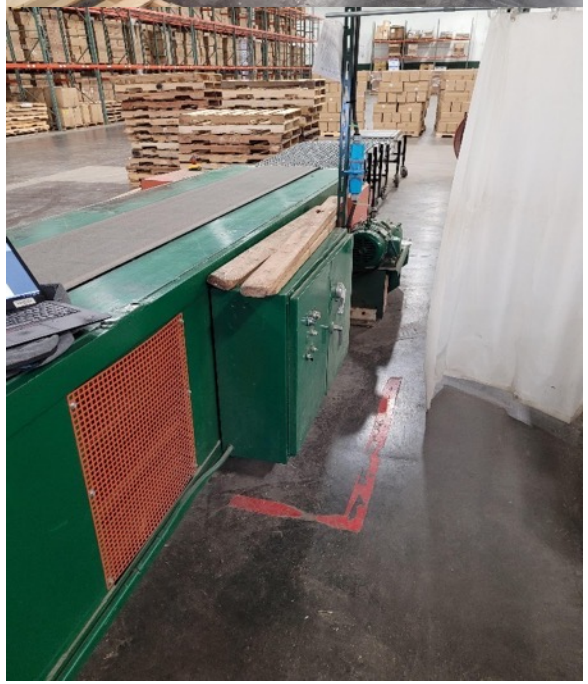
Offload Ergonomics

Drivers would have to maneuver 4” hose from in between trailer and pump while weight of hose drug across ground.

Installed hose troughs to allow hose to be at a waist height and keep hose out of walking area to avoid the tripping hazard the hose laying on the ground created.

Colony Brands Inc – Clinton, Iowa

Before Photos:



Truck Unloading – Truck Conveyor Improvements

Before: The original truck conveyor was a stationary unit. Trucks either needed to wait to be placed in this door or skate track was added to other doors for unloading. The original unit also had the operating components on the outside of the conveyor creating tripping and struck by hazards. Being an old unit more pinch points were present or had to have specialized guarding made to protect against them.

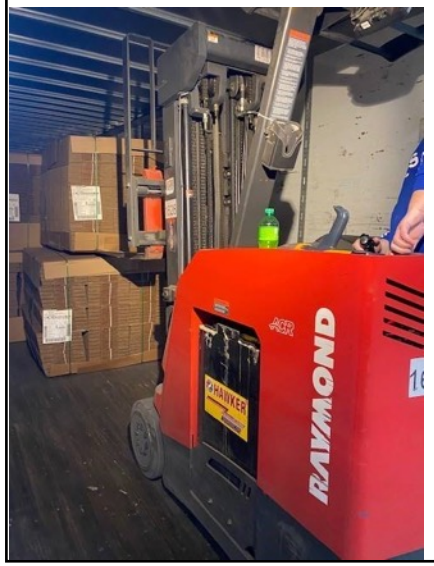
After: The new truck conveyor traverses across three truck doors eliminating the need to utilize skate track. All operating components are under the unit eliminating trip and fall hazards, reducing struck by hazards and reducing potential pinch points. The front of the new conveyor has an extendable snoot that is height adjustable making it ergonomically sound for the employees unloading the containers. It also has improved lighting to make it easier to see inside of the container reducing the chance to trip and fall over materials not seen.

After Photo

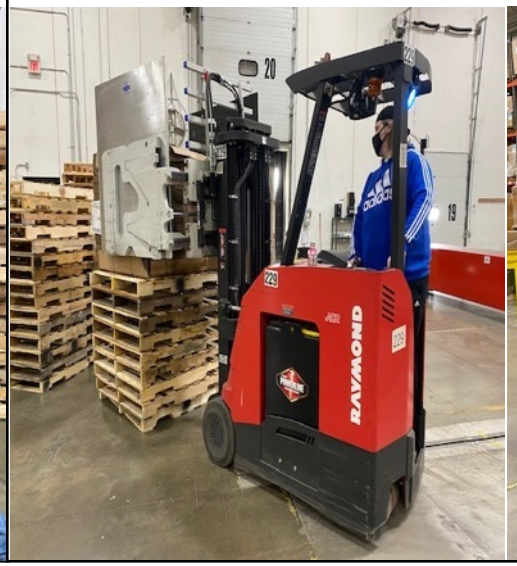
Colony Brands Inc – Peosta, Iowa

Cardboard Unloading – Clamp Improvement

Before Photos



After Photos



Prior to the purchase of a cardboard clamp, loads of cardboard boxes were picked up with a forklift from inside a shipping container without a pallet. The cardboard would then be placed on a pallet where second employee would hold the cardboard by the metal or plastic banding while the driver tried to remove the forks. This had risk of a forklift and pedestrian collision, a struck by hazard of a 1,000 lbs. or more of cardboard, and a hand cut hazard from holding the banding.

With the purchase of a cardboard clamp on a designated forklift, the manual portion of this process is removed as well as all 3 hazards associated with it. We also removed the potential hazards of putting on and removing the cardboard clamp by dedicating a forklift to this process only.