VAN METER

WERNER ELECTRIC

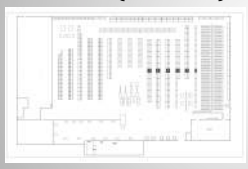
Van Meter/Werner Application for IISC Safety Award

VAN METER

WERNER ELECTRIC

We replaced our old conveyor system with a new one. It decreased the amount of walking our employee owners did, decreased the amount of lifting of heavy totes/ hauling them places,

Before (Problem)



• After (Solution)

VAN METER

WERNER ELECTRIC

We got new racks for forklift extensions. Before people easily cut their hands on it and it was a tipping/falling hazard. Those hazards have been eliminated and the pallets are more accessible as well.

• Before (Problem)

• After (Solution)

VAN METER

WERNER ELECTRIC

We have new box cutters with retractable blades. This prevents blades from being out when they aren't needed. This also prevents employees cutting themselves when they carry them in their pocket.

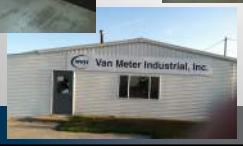
• After (Solution: Retractable Box Cutters)

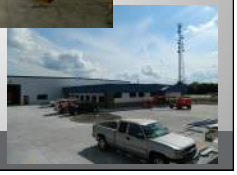
VAN METER

WERNER ELECTRIC

New building in Muscatine. Many safety upgrades to the warehouse, counter and office areas. The warehouse will have safety visual management (safety tape to prevent blockage of exits, fire extinguishers) and upgraded racking with additional safety features. The sidewalk is heated to prevent weather slip hazards in the winter months.

New counter area (left), **outside of new building** (below)





Old counter area (above), **outside of old building** (right)

Vactor Manufacturing
1621 South Illinois Street
Streator, IL 61364

Roy Snyder
Safety Manager
rosnyder@vactor.com
815-673-6063

The steps on the drivers side of a truck are not off set, making it difficult to find lower step. By attaching the temporary step, a fall hazard was eliminated

Before **After**


Employees were manually lifting a 75 lbs. fan on to a fixture. The vacuum lift now maneuvers the fan with the touch of two control buttons

Before **After**


Employees were exposed to ergonomic risk factors having to reach above shoulder height. Lowered the work by using engineered stands to allow employees to work at or below shoulder height

Before **After**


Employees exposed to heavy / vibrating impact wrench to stretch pump rods one at a time. Hydraulic system stretches all 4 rods simultaneously with no exposure to ergonomic risk factors.

Before **After**


Employees were exposed to ergonomic risk factors having to lift 75 lbs. stainless steel tanks. Sky hook has completely eliminated exposure to lifting hazard

Before **After**


Pella Corporation
Carroll, Iowa Operations

Carroll Noise Reduction Project
Machine / Area: Double Hung Frame Tenoner Saw Dust Pipe

Description of Issue and Change: Telescoping sawdust tube making a high pitched nose at certain size positions. Removed telescoping section and replaced with a flexible hose.

Operator Comments: I thought we had an issue with the saw running behind me, but realized that I could not hear it before.

Before Readings
Date: 1-23-2013 (Between Shifts)
Conducted By: Terry Kenkel
Area Reading (Machine off) NA
Area Reading (Saw Dust on Machine Off 71") 82 db
Area Reading (Saw Dust on Machine off 33") 87 db

After Readings
Date: 2-18-2013 (Between Shifts)
Conducted By: Terry Kenkel
Area Reading (Machine off) NA
Area Reading (Saw Dust on Machine Off , All sizes) 76 db

Carroll Noise Reduction Project
Machine / Area: Vent Casement Extrusion Saw / Extrusion Cell

Before Readings
Date: 7-17-13
Conducted By: Mark Werner
Area Reading (Feeding Material but not Cutting) 92 db
Area Reading (Saw Cycle) 101 db

After Readings
Date: 1-18-13
Conducted By: Mark Werner
Area Reading (Feeding Material but not Cutting) 84 db
Area Reading (Saw Cycle) 91 db

Description of Issue and Change: Clam shell added to contain sound that is emitted from the extrusion while it is being cut.

Operator Comment: It is unbelievable the reduction in noise for this process who would have known that muffling the noise from the metal would make such a huge difference.

Carroll Ergonomic Assist Project
Machine / Area: DVA Line Packout

Packout tables for mulling multiple units together always tended to be to small for the actual finished product. A small side table was built and placed on THK Rails to easily move into the other table for additional work surface or easily moved out of the way to minimize any additional reach as if all units where built on a large table.

Carroll Ergonomic Assist Project
Machine / Area: MP (Multi Product) Line Packout

Operator Comments: Because of the layout of the area or skids could only get so close to our table which made it difficult to load the skid from several feet apart.

Added a trolley to the area after reconfiguring the layout a bit. Now regardless of unit size we can transfer to the skid with no problem or ergonomic concern.

Work Practices to Reduce the Risk of a Hazard

- URS has created a 'Good Catch' Safety Program that helps our technicians be more aware of their workplace environment.
- Our techs recognize issues as they arise, report them and fix them before they can become safety issues.
- Anyone submitting a Good Catch is entered in a monthly drawing for prizes.
- Our site has the highest amount of Good Catches submitted and the best participation percentage.

Always remember to look:
Above
Below
Behind
Inside

- **Demolition at our site has posed many hazards including electrical, trip hazards and materials being left overhead.**
- **The picture to the right shows a 5 pound piece of steel that fell 30 feet from the rafters, striking one of our technicians on the steel toe of his boot.**
- **The steel vibrated loose from the use of a Saws All in the work area below.**
- **We now do a full assessment of the area before the job starts including using a JLG to check the rafters in demolition areas.**

Machine Guarding

An audit of the Waste Water Treatment Plant showed that many pumps and motors had exposed moving parts.

Safety guards throughout the plant have received a coat of yellow paint to alert techs that that there are moving parts under them.

- **New safety cages were fabricated and installed over the portable pumps to keep employees safe from moving parts.**

Engineering Control -Ladder Relocation

BEFORE

AFTER

- **A ladder leading to the top of a restroom was relocated. When reaching the top, you immediately had to climb over three foot tall condensate tank rails.**
- **Relocating the ladder eliminated the hazard.**

Engineering Control – Dock Plate

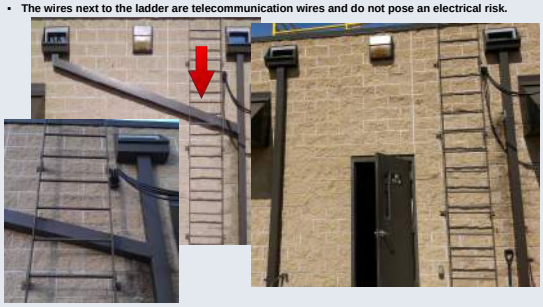
- **Our box truck is a few inches higher than the dock. A metal plate was fabricated to allow an easy transition from the dock to the truck.**
- **The plate eliminates the trip hazard and reduces the risk of the load tipping.**

BEFORE

UNDERSIDE OF PLATE

Engineering Control – Downspout Relocation

- **A drain spout running behind a ladder leading to the roof, made it impossible to use one of the ladder rungs. The drain spout was detached and there are now two separate spouts, eliminating the hazard.**
- **The wires next to the ladder are telecommunication wires and do not pose an electrical risk.**



Iowa Illinois Safety Award 2013

Submitted by
Windsor Windows & Doors
West Des Moines, Iowa

Windsor Windows & Doors
Near Miss Program
To encourage employees to report near misses/issues BEFORE it becomes a recordable injury.

NEAR MISS PROCEDURES

When a near miss occurs the following procedure needs to be followed. If you have any questions please see your Department Manager or Human Resources Department. *A near miss is when an incident that does not involve injury or property damage, but has the potential for injury or property damage.*

1. The employee will immediately complete the employee portion of the Near Miss Report and give it to his/her Manager.
2. The Manager is responsible for investigating the incident and completing the Manager's section on the Near Miss Report. The Manager will attempt to determine the root cause(s) of the incident and take corrective action immediately, if necessary.
3. The Near Miss Report will be given to the Human Resources Department within 24 hours.
4. The Human Resources Department will review all incident reports and determine appropriate corrective action to prevent recurrence. HR will also determine if the incident was caused by insufficient policy or by not complying with existing policy and will also determine if training was adequate.
5. The Near Miss Reports will be maintained by the Human Resources Department and all documentation of corrective actions taken.

****NOTE** A employee that completes and submits a Near Miss Report will be given a PRIDE AWARD.**

Pete Crivaro
Divisional Human Resources Manager

NEAR MISS REPORT

A near miss is when an incident that does not involve injury or property damage, but has the potential for injury or property damage. Unsafe conditions, unsafe work habits, improper use of equipment have the potential to cause work related injuries. It is everyone's responsibility to report and / or correct these potential accidents immediately. 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 or potential hazard:
_____
_____
_____
_____
Employee Signature:_____ Date:_____

MANAGER
Description of the near miss condition: _____
_____
Corrective actions taken:_____
_____
_____
Managers Signature:_____ Date completed: _____
HR Signature:_____ Date received: _____
PRIDE AWARD distribution date:_____

Windsor Windows & Doors
Routing Tables
Windsor has several routing tables in the facility and time was taken to better guard the equipment for the safety of employees.

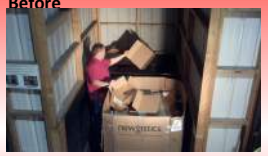

Windsor Windows & Doors
Wood Casement Production Line
Chains/barrier was added to the back side of the production area to prevent employees from entering the area – better guarding of equipment.


Colony BRANDS, INC.

COMMITMENT TO ZERO

Colony Compactor Project

Before



After

Colony Brands Clinton Returns added a cardboard auger to the end of the cardboard conveyor. This process eliminated the multiple handling of cardboard for most of the returns area, and decreased sprain and strain hazards from the cardboard retrieval process, while tripling the capacity of the cardboard dumpster from two tons to six tons. This reduces costs by reducing the frequency of pulling the dumpster from every two days to every seven days. It also reduces the downtime of the equipment and downtime-related clutter.

COMMITMENT TO ZERO

Colony Conveyor Project

Before

After

Colony Brands Clinton Returns added a cardboard waste conveyor that removed 14 cardboard storage boxes. This increased the space in the crowded returns area by 224 sq. feet, while decreasing the repetitive handling of approximately 4,000 cardboard boxes per day and the pushing/pulling of the cardboard storage containers by pallet jacks.

COMMITMENT TO ZERO

Colony Dock Conveyor Project

Colony Brands Clinton Facility also purchased an automatic adjustable dock conveyor for unloading containers. This has decreased the potential sprain/ strain of lifting floor loaded product onto a forklift. It also decreased our risk by eliminating the interaction of our employees and forklifts working inside a crowded semi-trailer while increasing the speed at which employees can unload a trailer.

COMMITMENT TO ZERO

Colony Anti-Fatigue Mat Project

Over 50 therapeutic anti-fatigue mats were added throughout the Clinton Warehouse to decrease discomfort, tiredness and fatigue that might develop after prolonged periods of standing, while improving morale and happiness of employees. These mats replaced all of the old anti-fatigue mats that were a lower-cost, lower-quality mat and that were becoming a trip hazard. These mats were not the correct size for the workstations, and were not providing the level of comfort that the new mats do.

COMMITMENT TO ZERO

Colony Hazard Identification Program

A Hazard Identification Program was developed in August, in which employees were encouraged to identify, document, and fix hazards in the workplace. Employees who identified hazards that were corrected received rewards for their help in striving for Zero Accidents in our Clinton Warehouse. Since implementation in August, over 450 Hazard ID Cards have been submitted, documented, and received follow up.

COMMITMENT TO ZERO

Donaldson
Dixon, Illinois

1. Hot Plate Visibility

- Hot plate oven not clearly marked, only gray framing
- Visitors to area were unaware that the table could be hot and burn them
- Installed hot signs and painted red to increase awareness

Before

After

2. Maintenance Area Training Matrix

- Concerns with not knowing who was authorized to use equipment located in maintenance area
- Created training matrix for easy visibility
- Ratings 2 and below need supervision
- Rating 4 is a trainer
- Rating for each individual determined by Maintenance Supervisor
- Employees now know who is authorized to use equipment and who still needs training.
- Matrix used in other areas for Quality and training purposes too.

Equipment

Employee Name Listed on Side

3. Winter Parking

- Multiple serious slips last winter, one resulting in an OSHA recordable incident
- Icy spots not cleared from cars continuously parking on snowy/icy locations
- Created "assigned" parking per working shift to give plow company time to better clear parking lot
- Installed flashing warning light
- Reviewed safe winter walking with employees

AMERICAN PACKAGING CORPORATION

American Packaging Corporation
Flexographic Printing & Laminating Division

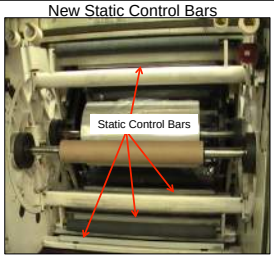
103 West Broad Street
Story City, Iowa 50248
(515) 733-1400

PRODUCT PROCESS SUSTAINABLE

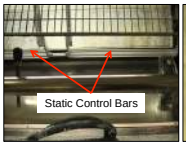
HAZARD CONTROL: Static Monitoring and Control Equipment

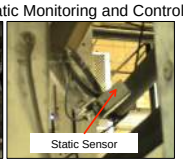
American Packaging Corporation's Flexographic Printing and Laminating Division wanted to find an innovative way to reduce the potential for static buildup on its printing presses through hazard controls. Static buildup on web materials has the potential for static discharge up to 20,000 volts, which could result in electrostatic shock to an APC employee or even the ignition of solvent/solvent gases.
APC FP&L accomplished its goal in 2013 by purchasing and installing state of the art static monitoring and control equipment. Prior to this capital upgrade, APC possessed very limited control over static buildup on its flexographic presses. APC invested time and money into researching potential issues caused by static and ways in which static hazards can be controlled. The result of this effort is increased safety for the entire plant and the surrounding community.

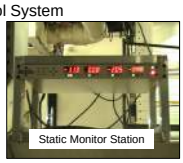
New Static Control Bars



New Static Monitoring and Control System







HAZARD CONTROL: Automated InkFlow Dispensing System

American Packaging Corporation's Flexographic Printing and Laminating Division wanted to find an innovative way to reduce employee exposure to hazards associated with its ink department processes. APC accomplished this goal in 2013 by purchasing an automated InkFlow Dispensing System. The automated ink and solvent dispensing system allowed the APC Ink Department to go from hand dipping in barrels to mix inks to a process that is completed automated. The new equipment has reduced the amount of chemical handling resulting in a reduction of employee exposure to volatile inks and solvents. Automating the ink preparation process has had a positive impact on quality control, waste generation and ergonomics. The new system has a total of 69 head dispensers with the ability to pump from stationary 55 gallon drums and 2200 lbs. totes.

New Automated Ink Dispensing System

HAZARD CONTROL: Ergonomic Equipment & Safety Improvement

American Packaging Corporation's Flexographic Printing and Laminating Division wanted to find an innovative way to improve ergonomic equipment and safety performance of its outdated core cutter equipment through the implementation of a hazard control. APC FP&L accomplished this goal in 2013 by investing in an automatic core cutter and splicer with the addition of a supplied automatic loader. The automated cutter/splicer has a huge ergonomic advantage over our previous equipment, which required manual core loading, setup and cutting. The new equipment allows employees to splice end cuts that were previously treated as waste and recycled. The equipment YTD has reduced core waste generation by 75% and reduced core costs by $147,000!

Previous Core Cutter:

New Automatic Core Cutter/Splicer Equipment:

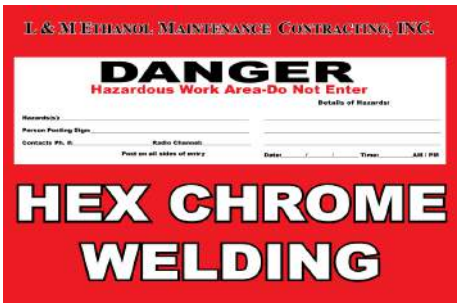
HAZARD CONTROL: Ergonomic Equipment Improvements

American Packaging Corporation's Flexographic Printing and Laminating Division wanted to find an innovative way to improve ergonomic equipment performance in its finishing department through hazard controls. APC FP&L accomplished its goal in 2013 by investing in two new pieces of equipment. The first capital investment is a set of Automatic Pallet Banding Systems. These systems eliminate several strenuous steps to the banding process resulting in improved ergonomics and overall efficiency. The second investment is an Automated Pallet Wrapper and Conveyor Belt Delivery System. This system reduces strain on APC employees associated with finishing department processes. The addition of this system also improved job safety control through increased guarding, lockout/tagout points and light curtains.

Automatic Pallet Banding System

Automated Pallet Wrapper & Conveyor Belt Delivery System

L&M Ethanol
Maintenance & Contracting



This is signage I designed to take the place of small hand written tags that our company was having issues with people not seeing and disregarding. Now all info is on the sign and we can better protect people from stepping through red tape areas containing Hex Chrome welding projects. Used in combination with our JSA this also allowed us to have all info in one spot for our guys to better determine hazards. This has been a great help for your professional safety outlook on jobsites.

Hot Work – Fire Extinguishers Project

Here is a safety project that we chose to build in house at L & M. I saw the need for a better way to have access and more visibility of our fire extinguishers while we work for clients doing hot work. Before extinguishers would be on the ground or sitting somewhere near the job but not very easily found. We built collapsible stands that provide high visibility and uniformity as to where to find extinguishers. All extinguishers can be easily read and stickers relay the fact that the extinguishers are L & M property.

This year L & M implemented new stickers for use with any and all red or yellow caution taped areas of work. These stickers are much better at conveying what is going on in the area and who is in the area working. These took the place of everything from scrap pieces of paper to danger tags. The stickers have specific info where the other tags had to have all info written on them and many times people would forget a piece of that info causing a safety hazard in some cases

Van Gorp Corporation

Van Gorp Corporation

IA/IL Safety Award Application 2013

End Disk Press modification

Before

This machine is used to flatten steel end disks. The ring pointed out with the red arrow is about 48" in diameter.
There is no reason for this ring to be this large and it prevented employees from being able to easily load and unload parts into the press with their below the hook devices.
There were a couple of near misses where disks fell off the below the hook devices because it was difficult to load them in the machine due to the interference of the large ring.

Solution: We cut the large ring down to a smaller size (approx. 24")
Loading the parts in the machine is safer, easier, and faster with this simple modification.

47

Van Gorp Corporation

IA/IL Safety Award Application 2013

Added hoist over plate bending roll

BEFORE

Pictured here is a plate bending roll. I want to draw your attention to the hoist and yellow arrow above the machine. The hoist moves in the direction of the arrow or perpendicular to the rolls in the machine. The purpose of this hoist is to aid in picking up steel plate to load/handle/unload during the rolling operation.

The problem was that at times we roll plate into a complete cylinder. When we roll complete cylinders on this roller there is no lifting device available to slide it off the top roll. The operator was doing this manual with their own power and brought to the attention of the supervisor that it was heavy and was likely above our 60# shop restriction.

Solution: We installed a hoist that runs parallel with the rolls so the operator can use a hoist to lift the cylinders as they guide it off the top roll.

Van Gorp Corporation

IA/IL Safety Award Application 2013

Weld wire spool replacement access

BEFORE

Pictured to the left is a box of weld wire that had to be raised up over weld curtain because there was no access at the ground level due to the layout.

Pictured below you can see the weld curtain supports block access for a forklift to drive in and set the weld wire box in place.

There were no near misses that caused us to address the issue, but a safety team member happened to walk by when they were lifting the box 8' in the air over the weld safety curtain and thought there had to be a safer way.

Solution: We modified the weld safety curtain bottom support so that we can use a forklift to set the weld spool in place.
Hopefully you can see in the picture that we cut that bottom support out so the box can be moved in and out at the ground level.

Van Gorp Corporation

IA/IL Safety Award Application 2013

- Walking & working surfaces improvement

Pictured here is a walking surface improvement. Throughout the shop we have steel floor grate covers because much of our air and power lines are run in the floor.

The employee in this particular work cell brought to the attention of the safety team that the steel cover had gotten very slick and was concerned he may slip.

Solution: Since we have the ability to shot blast, we removed the covers and sent them to shot blast. Now the floor cover has a rough surface eliminating the potential hazard.

Van Gorp Corporation

IA/IL Safety Award Application 2013

- Rubber machining Improvement

Pictured here is a pulley that is getting the rubber machined down to size in a CNC lathe. Unlike metal that chips away when you machine it, rubber tends to machine off in strands and can build up. If not watched closely it can build up quickly and cause damage to the part and equipment.

Solution: We introduced an air stream in front of the cutting knife that blows the rubber toward the tailstock of the lathe that forces the rubber to pile up in the bottom of the lathe rather than near the cutting area. (I apologize for not being able to provide a picture of the new setup, this process is not run very often).

Esco Group
Cedar Rapids, Iowa

To make sure that we follow OSHA Standards for our grinding shields, we implemented this measuring tool. It prevents the shields from getting out of place, which would create a hazard while grinding.

Before

After

We switched out our DeWalt grinders with the Metabo grinder that has a braking system. With the braking system in place, the tool is a lot more safe after use. There is no longer continuous spin from the grinder, it stops within a couple of seconds.

Before

After

Ground sets are installed to perform work safely after equipment is de-energized and locked out. The ground cable presents a safety hazard if left on the equipment after servicing, an arc blast or flash could occur. The strobe light and tag will help assure removal of grounds before re-energizing.

Before

After

We have introduced our own Lockout/Tagout tags. They are more durable, larger, and more descriptive. It prevents any miscommunication that could end up becoming a potential hazard opposed to the generic tags.

Before

After

We had SafeLine put down on a sloping sidewalk at one of our office locations. It helps prevent ice in the winter to avoid potential hazards, including slips and falls.

Heska Corporation
Des Moines, Iowa

Heska Corporation

Before	After
• Equipment Washing – Equipment required hand washing which includes physical demands (bending, twisting, lifting, chemical cleaners)	• Purchase and Installation of Equipment Washer – • Full automated eliminating physical requirements of employee. Eliminates/controls risk to employee.

Heska Corporation

Before	After
• Work Truck (1997 Dodge Ram) – Equipment required hand unloading of sand/salt for parking lot, Physical demanding.	• Purchase of "New" Work Truck • Dump box installed on truck which eliminates employee having to physically unload vehicle.

Heska Corporation

Before	After
• Company Vehicles – Equipment being used by sales force was being hauled in 2nd row and back storage are of vehicle.	• Purchase of Safety Gates behind driver. • Gates were installed behind driver to eliminate equipment from flying forward and causing harm to the driver in the event of rear-end crash.

CIPCO
Corporate Headquarters
Cedar Rapids, Iowa

Cedar Rapids facility had to fight approaching traffic while trying to turn into the employee drive (dramatization).

With approval from the DOT, CIPCO financed the construction of a turn lane to greatly reduce the potential for collisions at the facility drive (dramatization).

#1

Trees cut down on company property were made available to employees who wanted firewood for personal use (dramatization).

Employees established work rotation, use of Personal Protective Equipment, and scheduling to reduce fatigue and injury potential (dramatization).

#2

Many employees have to travel frequently as part of their job duties throughout the year, including winter (dramatization).

Employees frequently cancelled scheduled trips during inclement weather and instead conducted conference calls or rescheduled (dramatization).

#3

CIPCO
Creston, Iowa

Tree cutting and clearing in rights-of-way often require employees to get into uncomfortable cutting positions (dramatization).

Weedeaters were modified to allow for small tree and shrub removal to be done without getting into awkward positions (actual photo).

#1

Substations contain transformers with large oil capacities (dramatization).

An existing transformer from one location was transported to another and provided with spill containment even though it is not expressly required (actual photo).

#2

The traffic and parking area south of the facility did not offer adequate space for vehicles and other operations (dramatization).

The area was repaved and expanded (Actual Photo during construction).

#3

CIPCO
Summit Lake

Employees had some flat roof work and were unaware that fall protection was needed (dramatization).

A fall protection system was installed (actual photo).

#1

Employees had to transfer flammable liquid and needed a bonding device to prevent this dramatization.

The plant electrician created this device – problem solved! (actual photo).

#2

The plant is serviced by a natural gas pipeline partially owned by the company. Nobody ever wants THIS to happen (dramatization).

Barriers prevent the vulnerably exposed portions of the pipeline. (actual photo).

#3

CIPCO
Wilton, Iowa

The line crew has right-of-way clearing and rather than get themselves in a mess of poison ivy like this dramatization……

….they reschedule until the poison ivy is cleared or diminished as in this dramatization.

#1

This dramatization looks nothing like the Wilton "before" exterior storage rack area, but it sure is good for effect, huh?

This is the actual photo of their work after cleaning up and organizing equipment and equipment racks. It resulted in a safer area and opened up the lot for vehicles and other tasks.

#2

Getting up to a foggy day can make for a tough trip to work. Employees had this dilemma last year (dramatization).

No worries, though! They managed to roll their windows down and listen for traffic at dangerous intersections. This drowsy and grumpy employee pictured here is just a dramatization.

#3

Northern Natural Gas
2013 SAFETY ENHANCEMENTS

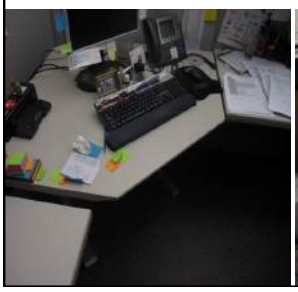
ILLINOIS SAFETY COUNCIL – April 2014

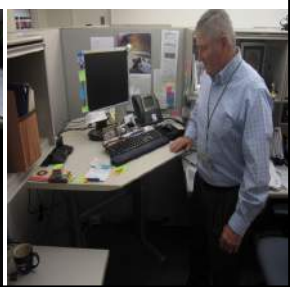
Northern Natural Gas

Ergonomics – Enhanced Work Stations

Northern Natural Gas provides employees workstations that electronically rise or lower to suit the employees' needs.

Northern Natural Gas employees can either sit at their workstations or stand using the electrical switch under the table.





IntegraFit

Northern Natural Gas provides annual hearing tests to all employees within the Hearing Conservation Program.

To enhance our Hearing Conservation Program, Northern Natural Gas purchased the quantitative earplug fit-testing program, IntegraFit, to ensure all employees are wearing the correct hearing protection and are wearing them properly.

Stairs

Northern Natural Gas realizes that stepping over our liquid containments could prove to be dangerous.

Northern Natural Gas is currently installing step-over ladders at all containment sites where they are not already installed.

Grinder Safety

Northern Natural Gas strives to maintain the OSHA standard regarding setting the tongue and work-rest clearances.

To further help employees, Northern Natural Gas purchased bench grinder safety scales to ensure the clearances are properly set at all times.

Guarding

Northern Natural Gas strives to ensure the safest work environment for its employees around rotating equipment.

Northern Natural Gas installs different types of guarding to ensure employees will not come into contact with rotating equipment.

Homeland Energy Solutions
Lawler, Iowa

The before photo represents two different gas trains, the bottom piping is natural gas and the top, gray, piping is biogas. We found that the two biogas valves began to stick open in upset conditions and not allow for us to ignite our dryers. When maintenance employees came to fix the sticky valves, they would stand on the natural gas piping in order to reach the valves. In response to the hazard, we constructed a two-step platform that employees can stand on to work on the biogas valves.

Before

After

The before photo represents our chemical dike area. The dike contains 5 different chemicals that need to be refilled from bulk totes. Employees must check the level of the chemicals once per shift. Employees were using 5-gallon buckets of chemical to stand on in order to check the level. In response to the hazard, we constructed a set of step platforms that employees can now use to stand on in order to check level.

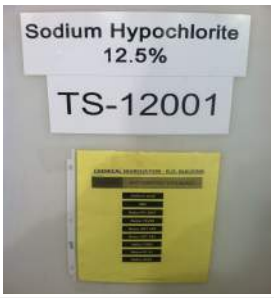
Before

After

The before picture is our water treatment building. There are a number of different chemicals in this building, some of them are not compatible with other chemicals in the building. In order to keep our employees informed on what chemical totes to store next to others and which chemicals will react with each other, we placed a sheet on each bulk container stating which chemicals it is not compatible with.

Before

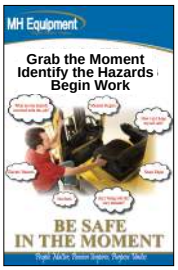
After



MH Equipment

East Peoria, Illinois

Grab the Moment



We at MH Equipment strive to create a culture of safety. Our mantra here is *Safe in the Moment*. If you can be safe for one moment, that can lead to one hour, which can lead to one day, one week, one month, one year!

To augment **Safe in the Moment**, we instituted a new program called Grab the Moment. Before starting any work, the employee takes 15-20 seconds to pause and identify the hazards associated with the task he is about to perform so he can take steps to avoid or correct those hazards to avoid injury. Once he has identified the hazards, he writes the hazard codes on the top of the work order. We or the customer can ask to view the work order to make sure he did the hazard analysis before he began the work. We can audit the work orders any time of day to hold the technicians accountable.

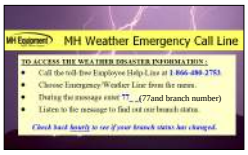
We gave our technicians Grab the Moment job hazard analysis cards that describe different types of hazards: Unseen (e.g.; gas), Seen (e.g.; sharp edges), Ergonomic (e.g.; awkward positions), and Housekeeping (e.g.; messy work area). This is another way to focus the technician's attention on the hazards around him.

MH Equipment
People, Passion, Purpose...

Weather Wallet Cards

MH Equipment has 28 branches and most of our branches are located in states where inclement weather is imminent, such as, South Dakota, Nebraska, Iowa, Illinois, and Ohio. We experience tornadoes, floods, snow, and temperatures way below zero.

There are times when we have to close a branch due to weather. Every employee has received an MH Weather Emergency call card like the one pictured. Each branch is assigned a 2-digit number. If an employee is experiencing bad weather in his branch area, he can call the number on the card and enter his branch number to see if the branch is open or closed for business. The branch manager keeps the phone message updated. If the branch is closed the employee does not have to venture out in the bad weather.



MH Equipment
People, Passion, Purpose...

Tire Lift Tool

MH Equipment services forklifts and other products. The tires of a forklift can be heavy and difficult to maneuver. MH technician, Harry Ulrich, invented a lifting device that makes changing tires easier.

The forks of the triangular shaped device slide under the tire cradling it between the forks. Using one hand to balance the tire, the technician uses his weight to push down on the handle lifting the tire off the ground. The wheels allow the technician to roll the tire into place and then he can adjust the height to mount it to the axle. This prevents possibly straining the back when manually lifting the wheel onto the truck.

MH Equipment
People, Passion, Purpose...

Branch Conference Calls

Each week the MH Equipment Safety Department sends out weekly safety tips to the branch managers. The managers then relay the safety information to their employees. Many of our technicians work outside of the branch and it is challenging to get the information to them. Several branches have begun holding branch conference calls to discuss the information. We have a designated phone line that technicians call in to and the manager facilitates the meeting.

The manager presents the safety material and then opens it for discussion. Technicians add to the discussion by giving their expertise, thoughts and suggestions. We have used many of their ideas as topics for other weekly safety tips and implemented some of their ideas.

The technicians have stated that they feel more connected to their branch and coworkers, that their ideas are being heard, and the time is well spent.

MH Equipment
People, Passion, Purpose...

Distracted Wrenching

Anything that takes the technician's attention away from the task at hand is what MH Equipment manager, Kurt Martens, calls **Distracted Wrenching**. We emphasize to our employees that once you are focused on a task it is important to stay focused to avoid injury.

Multi-tasking is a distraction that takes our focus off of the task at hand. Focus on the job and ignore the distractions because that could lead to injury. All of the following are examples of distractions that can take our focus off of the task at hand.

- When you receive a phone call, stop what you are doing and focus on the call.
- When sweat is running in your eyes or your safety glasses are foggy, stop what you are doing and take time to clean them.
- When someone is calling to you from across the shop, stop and give them your full attention.

Realizing that distractions can contribute to injuries, it is important to focus our behavior on the task at hand.

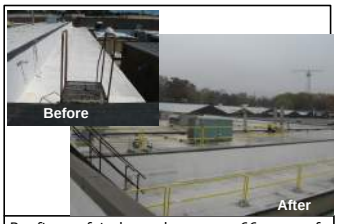
MH Equipment
People, Passion, Purpose...

Rockwell Collins

Rockwell Collins
Cedar Rapids, Iowa

Rockwell Collins

Rooftop Risk Assessment, Hazard Mitigation and Control



Rooftop safety hazards on over 66 acres of rooftops were evaluated and controlled through the following:

- Guardrail Installation to Reduce the Need for Fall Protection (PPE)
- Radio Frequency Risk Assessment and Monitoring
- Signage and Training
- Rooftop Access Control

Rockwell Collins

In-Plant Working at Height Risk Assessment, Hazard Mitigation and Control

Working at height safety hazards were evaluated and controlled through the following:

- Improved Handrails and Toe Kicks for Legacy Catwalks
- Installation of Additional Catwalks for Better Access to At-Height Equipment
- Replaced Shock Absorbing Lanyards with Self-Retracting Lanyards
- Implemented Hands-On Annual Training (Employees & Contractors)

Rockwell Collins

Ergonomic Risk Assessment, Hazard Mitigation and Control

- Ergonomic Hazards Were Evaluated and Controlled Through the Following:
  - Analysis of Injury and Illness Data
  - Current State Survey to Employees
  - Business Case Presented to Leaders
  - Leader & Employee Training
  - Coaching Guides and Training
  - Updated Stretching Program
  - Monitoring and Measuring

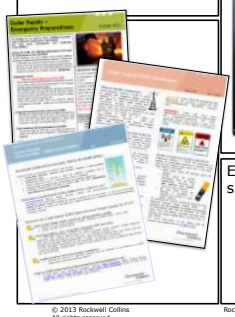
Rockwell Collins

Parking Lot Safety Improvement and Awareness

- Parking Lot Safety Hazards (90 acres of parking lots, 5 miles of sidewalks, 5 miles of drives) Were Controlled Through the Following:
  - Speed Calming Humps
  - Replacement of Damaged Sidewalks
  - Resurfacing of Parking Lots
  - (FS input – heated sidewalks, snow/ice management, etc.)
    Winter Weather Awareness Campaign
  - Shuttle Bus Between Buildings
  - Traffic Signal Improvements for Pedestrians

Rockwell Collins

Increase Employee Environment, Safety & Health Awareness



ES&H communications are being actively shared with employees through:

- Weekly Digital Presentations
- Monthly ES&H Newsletters
- Quarterly ES&H Management System Fliers
- Bi-annual Emergency Drill "Lessons Learned" Posters

City of Mason City

Mason City, Iowa

On August 26, 2013 the City of Mason City Municipality had an accident involving an alloy chain breaking and an injury to a City employee. OSHA investigated the incident and the following Citations occurred:

Violation

Employer did not ensure that 80 and 100 grade chains were not used as a means for pulling tree stumps. This subjected the chain and hooks to an unquantifiable force.

Since there are no OSHA regulations for using a steel alloy chain for pulling purposes, this was written under the General Duty Clause.

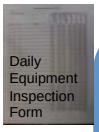
Hazard Correction

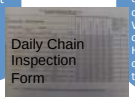
Unquantifiable force means impossible to measure in terms of quantity. Immediately, we put a hold on the usage of all chains that we use for pulling. I began thinking of the impact it would have on the City. No pulling out stuck vehicles or fences and posts embedded in the ground. The decision was made to dispose of all chains which we could not find the Working Load Limit or be able to trace to the manufacturer. We replaced the majority of chains with synthetic slings or recovery straps. Though this did put a huge imposition on the City, it did make the City a much safer place to work. We found that synthetic slings work well as a chain replacement, but nothing can replace a chains durability.

Violation

2. Our second violation was: Employer did not ensure employees were not using 80 and 100 grade tie down chains and a Case End loader to remove a tree stump from the ground.

OSHA used 1926.20(b)2 which places the municipality under Contractor Requirements which states: The employer did not provide for frequent and regular inspections of the job site, materials and equipment to be made by the competent person(s).





Hazard Correction

One thing we found out, through research, is that a tie down chain is below 80. We used 80 and above which is a much stronger chain. The supervisor was at the job site and did not expect any dangers. He thought he saw the tree stump move when pulled upon. The chains and equipment were inspected monthly and we had documentation to prove this. Upon usage of the chains that day, the supervisor glanced at them and the equipment, a Case End Loader, did not get a daily pre-inspection. What we learned from OSHA is that a chain has to be inspected prior to each usage when used for pulling (1910.184)(d) and 1926.601(b)14 states that all vehicles in use shall be checked at the beginning of each shift ; this pertains to certain heavy equipment. To make a person competent we had extensive training on chains, slings, and we were told by OSHA consultation that we needed Riggers training. We made up daily inspection forms for chains, slings, heavy equipment, and Job Site Hazard Analysis. All inspections are documented. We went through a series of testing to prove competency.

Violation

3. Employer did not include in Tree Removal Policy and training the improper use of chains.

OSHA used the Contractors Requirements for our Municipality:

1926.21(b)(2): The employer did not instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his/her work environment to control or eliminate any hazards or other exposure to illness or injury.

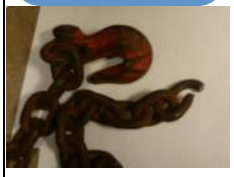
Hazard Correction

Unfortunately there are no OSHA regulations to train on when using chains for pulling purposes but now Iowa OSHA requires that we must know the forces on the chains before we can use them. We also corrected this violation by adding to the policy that chains can not be used unless the forces are quantifiable. The additional requirements with chain usage will ensure our employees safety. We do not expect to have any injuries of this nature in the future.

SUMMATION

HAZARD

The hazard was using a chain for pulling that the forces could not be calculated, not inspecting daily and not having proper use of chains identified in the Tree Removal Policy.



Hazard has been controlled by:

Using chains when weight of the object is known and forces on the chains known. All chains used for pulling have been replaced with synthetic slings or recovery straps.

Documenting inspections daily of the job site hazards, chains, slings and equipment .

Include the new requirements in the Safety Manuals Tree Removal Policy

HAZARD CORRECTION

Growmark, Inc.
Headquartered in Bloomington, Illinois

Employees were required to walk on top of barge lids in all types of weather in order to remove the lids so that the barge could be unloaded. Walking surfaces were extremely hazardous.

Photo of hazard may be inserted here

Location fabricated a lid removal device that could be attached to the unloading crane. Employees can now remove the lids without having to go onto the lids.

Fertilizer would fall of the rail unloading conveyor that ran through an underground tunnel. If groundwater was present, the fertilizer would mix with the water and a hazardous atmosphere would be created.

Photo of hazard may be inserted here

Location installed a ventilation system to remove moisture and reduce the likelihood of a hazardous atmosphere in the tunnel.

Fuel terminal was utilizing a top-load system that required drivers and employees to access the top of transport vessels in order to load petroleum.

Photo of hazard may be inserted here

Location replaced top-loading system at the fuel rack with a bottom-loading system. Drivers and location employees are no longer required to access the top of the transport vessel while loading at the terminal.

Groundwater containing fertilizer was present in the rail unloading conveyor tunnel underground.

Photo of hazard may be inserted here

Along with plans to install a ventilation system, location personnel installed a piping system that would allow them to easily remove and recapture water from the tunnel. This will greatly reduce the likelihood of a hazardous atmosphere in the tunnel and will also reduce the likelihood of a discharge of fertilizer containing water.

Location personnel are required to enter transport vessels to perform inspections and make repairs. Due to the design of the transports, attendants are not able to visually observe entrants while they are inside the vessel.

Photo of hazard may be inserted here

The location updated their Permit Required Confined Space procedures to require the entrant to notify the attendant by radio whenever they move from one section of the vessel to the next (sections are divided by baffles). This procedure will assist with rescue efforts should the need arise.

Existing procedures required personnel to utilize a jack stand only when a tire or wheel was being removed from a transport trailer.

Photo of hazard may be inserted here

The location updated their procedures to require the use of jack stands any time a vessel is to be raised off the ground. This will greatly reduce the likelihood of an unexpected movement of the trailer which could cause serious injury or death to an employee.

SoyBasics
New Hampton, Iowa

Added Seated Work Stations

Before

Before employees would be on their feet all day no matter where they rotated to.

After

After employees get the opportunity to sit down in several of the rotation positions.

Ramps Removed From Lift Tables. Forklifts Now Used

Before

Before employees would remove full pallets with a hand pallet jack walking backwards most of the time.

After

After ramps were removed and line was redesigned so forklifts could be used to move pallets.

Platform Used For Adding Bags of Product.

Before

Before employees would add bags to the melt silo standing on a scissors lift with pallet of bags on a forklift

After

After employees use platform with lift table so bags can safely be added to the silo.

McFarland Clinic
Ames, Iowa

One of the areas that we were seeing ergonomic issues came form the fact that some of our office chairs could not be adjusted to fit the individual using them. We implemented a list of approved chairs that could be adjusted to fit everyone from the 5th to the 95th percentile. All new chairs have to be purchased from this approved list.

All of the approved chairs included the following features:
Lumbar adjustment, independent back angle adjustment, seat pan adjustment, weight adjustment , height adjustment, seat angle adjustment, arm adjustment to include both height and width adjustment and rounded front seat edge.

OLD

NEW

Safety programs at work are needed as well as required and are routinely trained and updated. These are designed keep our staff safe at work.
We want to make sure our staff and their families are safe period, whether they are at work or at home.
There is a lot of information out there on home and family safety.
This is how we get this type of information to our people.

Depending on the type of information and the urgency of the information we have several ways to send it out.

- All user e-mails
- Our intranet homepage
- Our electronic company newsletter
- Attachments to our Safety Committee minutes.

Once we have the information out to our staff we place it on our Safety home page for future use or reference.
Here are some of the types of information we have there.

- Don't Veer for Deer
- 511 Travel Information
- Winter Driving Safety
- Change your Smoke and CO detector batteries
- Tornado Safety
- Furnace Safety Checklist
- Battery Safety and Recycling

With more visitors using insulin all the time we wanted to ensure that our staff or other visitors didn't get an accidental needle stick from an insulin needle.

We decided that we would place a sharps container in all of our restrooms

We decided to include all staff restroom as well as all public restrooms

We installed 147 sharps containers

Morrison Brothers
Dubuque, Iowa

In order to leak test these products air connections and plugs were manually inserted by hand and wrench. There are 3 sides with a plug and 1 side with an air connection. The product had to be leak tested in the water tank and then disassembled. A pneumatic fixture was engineered eliminating manual assembly and disassembly. Ergonomic hazards were mitigated and efficiency was improved.

Before **After**

Leak testing of many products previously required employees to load a tub full of products and transport to a central leak testing station. The station would be manually reconfigured with adapters for the specific product being tested. This took valuable time and effort. Individual leak testers were engineered and ergonomically located at each work station eliminating much of the product handling, manipulation, and lost production time.

Before **After**

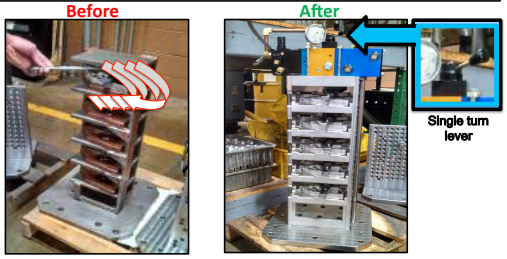
PRIOR TO BEING MACHINED, METAL CASTINGS MUST BE CLAMPED INTO "HOLDING" FIXTURES:

Previously, castings were clamped into these fixtures manually, a process that required the employee to perform repetitive wrenching motions. This took time and exposed the employee to sprains, strains, and chronic ergonomic injuries, as well as potential hand injuries from the wrench slipping.

New fixtures are now being utilized which allow the employee to clamp the nozzles hydraulically using a single step, lever-actuated valve. This improved method instantly clamps the nozzles in place.

In addition to eliminating the aforementioned hazards, this new process enhances production, and boosts employee morale.

Before **After**



Iowa-Illinois Safety Council Safety Award Program

Pella Corporation – Shenandoah Operations
2014

Planer

Planer for medium radius parts had open access to front cutters, exposing operators to a cutting hazard. Radius parts varied from ¾" wide x 1 ¼" tall 2" wide x 6" tall (largest part). The brush guard was replaced with a sliding guard that allowed for varying part sizes and radii. The guard is self closing against the part to eliminate exposure.

Before

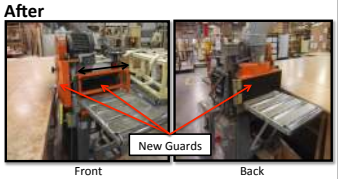
After

Portable Planer

The typical portable planer that comes standard from the vendor has open access on all sides to the cutters, especially when the planer is open to its fullest potential for larger/ taller parts. New guarding was installed around entire perimeter to restrict access. A spring loaded sliding guard was installed at the front or entrance to the planer that closes automatically against the part and fully closes after part passes. A spring loaded hinged guard covers the back side of the planer, which also closes after part exits the machine.

Before

After



Curved Parts Planer

Planer for curved and arched part had open front and side access to cutters, exposing operators to cutting hazards. Part sizes varies from 1 ¼ " wide to 6" wide and part thickness from ¾" to 6" thick. New guards were installed to minimize opening size and restrict access to the cutting area at both the in-feed and out-feed.

Before

After

Poet Biorefining
Corning, Iowa

Project: Corn Oil Sample Platform

Traditional paint peeled with high temps and caustic exposure which made for slippery surfaces.

The surface was redone with anti-slip material then coated in temp resistant and chemical resistant paint.

Project: Corn Oil Sample Port

Corn oil tank samples are required daily requiring employees to enter the sometimes slippery containment to obtain the sample. When the 5 gallon buckets are full they must be carried out.

A recirculation loop from the tanks was installed indoors eliminating the need for outside sampling.

Before

After

Grains Building: Dusty DDG Loadout

- Dusty conditions during DDG Product load out. (NO BEFORE PICTURE AVAILABLE)
- Installed a collapsible chute that expands and contracts to allow product through, greatly reducing the amount of dust created during the load out process.

After

Project: Distillation Slip Hazard

There is a sloped incline going in and out of Distillation. When this surface gets wet, it gets very slick and it is hard to get traction to push open the heavy doors because distillation is under vacuum.

We laid down grip strips so we have better traction, therefore reducing the slip hazard.


Before


After

Project: Tank Farm Slip Hazard

Tank farm samples required twice a day requiring employees to frequently traverse slippery slopes to obtain samples.

Installed elevated walkways with non-slip grating and handrails over all berms to eliminate hazard.


Before


After

Safety Improvements 2013

Dresser-Rand
Burlington, IA

Material Racks

Before: Pieces of steel are leaned against back of rack. If hit they can fall

After: A Chain is installed to prevent the pieces of steel from falling

Floor Mats

Before: Fatigue mats used have square edges that create a trip hazard

After: Old mats are replaced with new mats with a yellow 45 degree edging to increase visual awareness and remove the trip hazard.

Trip hazzard

Before: A mat was installed to prevent damage to the ends of the steel pieces stored in the rack and was left extended into the walkway along with other items stored by the

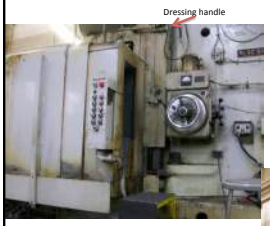
After: The mat was cut off at the edge of the rack and other items properly stored.

Roll-off Container Guards

Before: When chips and metal was dumped in the recycled metal Roll-off Container from dumpsters, pieces could fall off the opposite side onto area workers

After: A guard was installed on one side to keep material from falling out of roll-off container

Handholds for Step



Before: To dress grinder wheels, employees need to step up and pull and hold on the dressing handle. The handle moves up and down depending on setup. Due to the machine controls, need to be able to see the operations, the part the platform could not be raised or a larger step installed

After: Handholds were install to help the employee get up and maintain balance while dressing the wheel.

Iowa/Illinois Safety Council Annual Safety Award

American Ordnance

We do what we say.

When being towed down the ramps, the wheels would hit the bumps in the concrete causing the shells to shift and in turn causing TNT spilling on the floor causing a safety hazard.

- *Before*

- *After*
- *A bar was added to the configuration to ensure that the top stayed where it was supposed to while transporting the shells.*

BEFORE - Lifting 80lb 795 Ordnance Shells by hand.
AFTER - Designed lifting ring that attaches to inside thread of shell.

- **BEFORE**

Photo on left identifies "before" location of air & electrical hookups from tractor to trailer. Photo on right shows present location of hookups. Relocating the hookups eliminated climbing onto the platform between tractor and trailer

Before

After

A simple "tire caddy" eliminates potential risk of a serious back strain or pulled muscle

Before

After

"Safety enclosure" contains high tension spring of air-brake when cutting to eliminate tension. The brakes are sold to local scrap metal buyer. This action will eliminate serious injury if someone would attempt to dismantle and high tension spring is released

Before

After

Architectural Wall Systems
West Des Moines, Iowa

Work Stations

Work station built for proper height and ergonomic floor mat bought and secured in place for continuously standing at work stations.

Edge Protection

A near miss reported a torn pant leg from the metal protrusions. Tennis balls were secured in place to guard the roller line ends.

Edge Protection Continued

Unitized window picking apparatus was also equipped with modified tennis balls to protect from the metal ends.

Material and Storage Areas

Cones and hulu skirt tape is used to discourage employees from walking through and over stored materials. Secondary function was to provide better visibility for fork truck operations.

Material and Storage Areas Continued

More hulu skirt tape placed to encourage to walk around materials and provide visibility for fork truck operators. This method is more versatile and effective than painting yellow lines on the floor.

Safety Implementation

Winger Contracting Company

Safety Committee

- Winger Safety Coordinators have started a monthly conference call on the fourth Monday every month.
- Conference call topics include situations that Safety Coordinators deal with at their sites and the solutions they come up with.
- This communication is vital to the success of the Winger safety program. It also helps us stay on track and be consistent and proactive to similar situations at different jobsites.

Safety Training

- For the month of November 2013, Winger invited the DBI/Sala representative to do Fall Protection Inspection Training and the Drop Demo Test for all Winger employees company wide. Several jobsites were visited.
- Results:
  - Winger workers got to see first hand the drop demo and see the impact of falling and why it is so important to adjust their harness properly.
  - Winger workers were inspecting their fall protection equipment more thoroughly and reporting equipment that needed to be taken out of service.
  - This activity brought up some really good questions about situations on their jobsites and solutions to problems they deal with every day.

Preventing Grinder Kick-Back Injuries

- Winger, other contractors, and even customer employees, have had several injuries over the past several years from grinders kicking back during use.
- Customers are looking at banning use of grinders on their job sites.
- Winger decided to look at other options and find a solution.
- After trialing several different grinders, one stood out. The Metabo grinder with the anti-kick back clutch and brake.
- During trial use, Winger employees performed several cuts on many various types of materials with different manufacturers grinders.
- Even with experienced employees trying to make the grinder kick back, employees could not believe the difference.
- The Metabo grinder automatically stopped within a second and would not kick-back compared to other manufacturers products.
- Results: SUCCESS! Since choosing the Metabo grinder for cutting activities, Winger has not had one kick-back injury!

Updating Safety Equipment

- Problem: Miller harnesses kept failing in same place, behind D-ring. Spoke to sales rep and received unsatisfactory response.
- Solution: Researched and tried several different harnesses. Selected DBI/Sala Protecta Construction Harness.

Iowa-Illinois Safety Council Safety Award Program

Pella Corporation –Macomb Operations
2014

Stockroom Ergonomics Improvement

Before

Team members had to pick material from the pallets on the floor.

After

Removed the pallets off the floor and lowered the racking down 3ft so the pallets are waist to head level.

Part Staging Improvement

Before

The muntin rack was located above the team members workstation. Team members would reach above their head to grab their next part. Certain muntins would grab the one in the next slot and pull it out causing falling parts.

After

Once the risk was identified, we got our CI team involved. CI redesigned the rack. The rack is now located on a moveable cart next to the team members station, instead of up above their head. The parts are now waist to head level of the team member. CI also strengthened the inserts of the rack so parts come out smoothly and do not grab the next part. This eliminated the risk of falling parts in this area

Job Rotation Program

Developed and implemented a new Job Rotation Program that evaluated jobs/tasks based on body mechanics and muscle groups used. Team members were cross-trained on various positions and a rotation schedule was developed for all production levels. Team members are required to rotate after each break to a new job that uses different muscles. A daily rotation schedule is developed and posted.

Classic Line Job Rotation Audit - Level 2				
Rotation A- Operator 3 rotation only-No Contingent Workers in this rotation				
Audit Date:		Auditor:		
Job	Start	Morning Break	After Lunch	Afternoon Break
Sash To Frame				
Test Rack				
Rotation B- Operator 3 Rotation only				
Job	Start	Morning Break	After Lunch	Afternoon Break
Glass Layup				
Belly Bander				
Rotation C				
Job	Start	Morning Break	After Lunch	Afternoon Break
Cladder				
Frame Clamp				
Rotation D				
Job	Start	Morning Break	After Lunch	Afternoon Break
Stile-Rail Press				
Clad Prep				
Jamb Prep				
Rotation E				
Job	Start	Morning Break	After Lunch	Afternoon Break
Head and Sill				
Hardware Station				

Rite Hite Corporation
Dubuque, Iowa

Forklift drivers were expressing concern about safety when using loading dock trailer lights. They stated that they were blinded by the lights when backing out of the trailers.
We installed new Rite-Lite Flex Neck LED Loading Dock Lights to help alleviate this problem. This light has motion sensing technology that dims lights when it senses movement coming towards it.

Rolls of material were stored under a rack with no safety barrier there to protect employees in case a material roll tips over.
We installed a barrier that spans the gap of the rack that can keep employees safe from falling material rolls.

Employees were at risk due to work area being right next to forklift aisle. We installed a barrier system to keep employees from backing out of a work area and right into the path of a forklift.

Barrier on mezzanine was not sufficient in order to keep employees safe when placing materials on second level. We installed new safety mezzanine barrier which helps keep employees safe when loading, unloading, or working near the edge of the mezzanine.

Valero Renewables Fort Dodge, Iowa
IISC Hazard Control Recognition Program

Authors: Austin Hayek – Safety Committee Leader
Mark Wescoat – HSE Manager
Troy Shaner – Plant Manager
Kyle Sheppard - HSE Specialist

VALERO renewables

Strainer Basket Lifting Device
Plugged sump strainer baskets can weigh as much as 50+ pounds. Lifting by hand caused ergonomic concerns. A mobile engine hoist was installed to aid in lifting strainers reducing risk of back, shoulder & arm strains.

Potential injury cost - $10,000 Mitigation cost - $2,500

Before

After

Anti-Slip Painted Walkways
Entrance ways, heavy foot traffic areas and chemical process floors were painted with epoxy anti-skid floor paint. Over 6,000 square feet of floor surface was coated to prevent slips and falls accidents.

Slip cost per injury - $5,000 Mitigation cost - $10,000

Before/After

Before/After

Scale house entrance and weather break
During high winds and blowing snow storms, access door to scale house was hazardous to enter and exit. The wind break structure not only allows for safer opening of the door but also includes a clear roof for lighting to easily shine through on to the pathway.

Shoulder surgery cost - $30,000 Mitigation cost - $4,000

Before

After

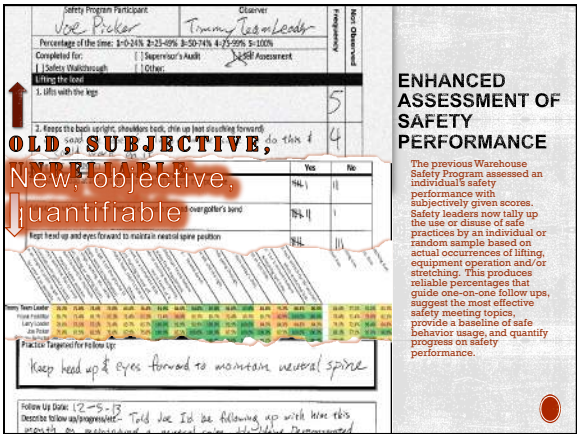
Hazardous Waste Storage Confinement
Hazardous waste liquids and solids need to inspected, secured and stored on secondary containment pallets. Valero installed a new lockable caged areas with signage and instructions to worker on protocols for maintaining and adding waste to the storage area. This improvement has enhanced the Fort Dodge Ethanol plant's housekeeping and environmental compliance program.
Potential Hazardous Waste Release or Violation: $10,000/day Mitigation cost: $2000

PDI HAZARD CONTROLS 2013

Perishable Distributors of Iowa, LTD.

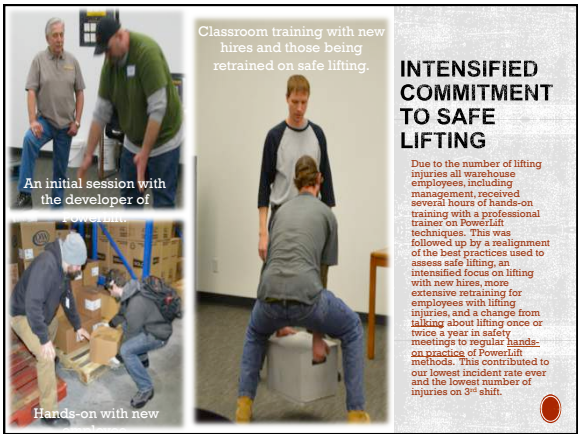
NEW SECURITY SYSTEM

Secured all entry points, installed badge scanners at doors, issued employee badges and initiated procedures for tracking visitors. These measures protect our employees from workplace violence, facilitate accurately accounting for everyone on site in the case of an emergency evacuation, and restrict access to products and critical systems.



ENHANCED ASSESSMENT OF SAFETY PERFORMANCE

The previous Warehouse Safety Program assessed an individual's safety performance with subjectively given scores. Safety leaders now tally up the use or disuse of safe practices by an individual or random sample based on actual occurrences of lifting, equipment operation and/or stretching. This produces reliable percentages that guide one-on-one follow ups, suggest the most effective safety meeting topics, provide a baseline of safe behavior usage, and quantify progress on safety performance.



INTENSIFIED COMMITMENT TO SAFE LIFTING

Due to the number of lifting injuries all warehouse employees, including management, received several hours of hands-on training with a professional trainer on PowerLift techniques. This was followed up by a realignment of the best practices used to assess safe lifting, an intensified focus on lifting with new hires, more extensive retraining for employees with lifting injuries, and a change from talking about lifting once or twice a year in safety meetings to regular hands-on practice of PowerLift methods. This contributed to our lowest incident rate ever and the lowest number of injuries on 3rd shift.

INCREASED VISIBILITY FOR TOW TRUCK DRIVERS

Flashing lights were installed on our tow truck and a yellow visibility vests were placed in the cab to be used by whoever is driving it, enhancing their visibility while working on a roadside.

EMERGENCY RESPONDERS NOTIFICATION SYSTEM

Created 911 function on intranet allowing any user to report an emergency, which is then communicated quickly. The system provides important information to emergency responders, especially the HAZMAT team, and even warns employees offsite via text if they should stay away.

Iowa-Illinois Safety Council
Safety Award Program

Monsanto
Clarion, Iowa
Award Submission
January 2014

MONSANTO

Forklift Blue Lights

Site Added Blue Lights to the backup system on all our forklifts. The light shines into the Isle as operators back out of a row of seed, alerting oncoming traffic. This system works especially well at blind intersections and when operators are deep into a bay.

MONSANTO

Hi-Viz Gloves

The site uses Hi-Viz gloves for hanging bulk seed bags on the forklift. This allows the operator to see the employees hands and reduce the chance for a finger getting pinched.

MONSANTO

Forklift Speed

The site programmed our forklift speed down to 80% of max. This has resulted in a great reduction of tipped or spilled bags due to operators turning and hauling product too fast.

MONSANTO

National Railway Equipment
Mount Vernon, Illinois
IISC Safety Award
for
Hazard Controls

Ladders vs. Portable Stairs

Some areas are always a hassle to use a ladder especially when working from it.

NRE implemented more portable stairs for employees to use and to be safer when working from an elevation.

Fire Extinguishers

After noticing that fire extinguishers would get blocked in the same area from time to time, we put signage up to notify that this wasn't a storage area and not to block fire extinguishers.

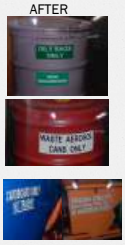
BEFORE

AFTER

Waste Hazards

BEFORE

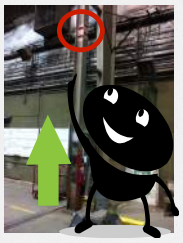
AFTER



- Implementing the controls of Labeled containers for aerosol cans and oily rags to help employees with the proper locations for disposal. Also color coding our waste receptacles for wood, trash, and metal etc.

Fire Extinguisher Locations

- It's normal for a extinguisher to just have a sign 5 foot off the ground to notify an employee where an extinguisher is located.
- We took it a step further and put up markers with red reflective tape about 18 to 20 feet in the air so an employee can just look up and see exactly where a extinguisher is located in the building.



Thank You...
From,

National Railway Equipment Company
SILVIS LOCATION

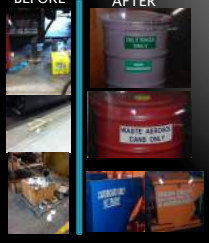
IISC SAFETY AWARD FOR HAZARD CONTROLS

Portable Ladders vs. Portable Stairs

- Some areas are always a hassle to use a ladder especially when working from it.
- NRE implemented more portable stairs for employees to use and to be safer when working from an elevation.

Waste Hazards

BEFORE AFTER

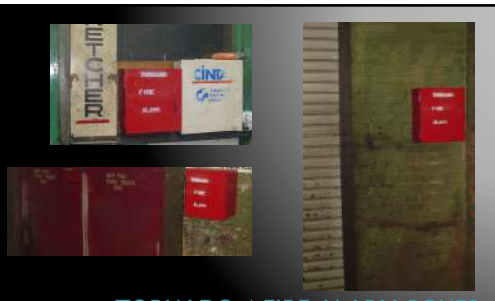


- Implementing the controls of Labeled containers for aerosol cans and oily rags to help employees with the proper locations for disposal. Also color coding our waste receptacles for wood, trash, and metal etc.

New Paint Booth

Previously the NRE's Silvis location has gotten a new paint booth. The stress of more and more locomotives to be rebuilt and brand new locomotives has really done a toll on the older paint booth.

Now with the new booth our employees will have the best lighting, applications, and space needed to keep our employees as safe as possible while painting.



TORNADO / FIRE ALARM BOXES

As we have these set up throughout the plant already we added more to different locations through the building so they can be as convenient as possible for employees to alert others if there was an emergency.

Thank You…
From,

Kinze Manufacturing
Williamsburg, Iowa

24 Row Wing Welding

Before

After

Parts were turned using an overhead crane to weld components. This welding fixtures did not have height adjustment and welding was performed using awkward postures.

New rotating fixture was built to allow welders to rotate 24 Row Wing, reducing the time and effort to turn the part. The fixtures rotate and have height adjustment (which eliminate awkward postures). Heavy lifting and kneeling to get to the parts that needed welding were eliminated . Over 68 welders will benefit from Ergonomic improvement.

North End Employee Entrance

Before

After

Employees would arrive and go through the tunnel that ended at the top of the hill, exposing employees to the elements and vehicle traffic. Employees needed to cross the road to get to the employee entrance. There was a potential for slip, trip, fall or pedestrian accidents.

Tunnel was constructed underground to have employees walk to the employee entrance. No exposure to vehicles or weather elements as they travel to the entrance. 500+ employees enter and exit the tunnel daily.

Safety Incentive Program

Roquette America, Inc
2013
Improvements based on employee submitted problems and solutions

Packaging Improvements

A new packaging line was installed which consisted of many manual tasks. These were lifting 50 pound paper bags, bending to place bags on pallets and stretch wrapping pallets. There were concerns of major back injuries if not rectified.

Pallet lift and vacuum bag lift

Automatic Stretch Wrapper

Manual stretch wrap

Manual bag stacking

A JSA was performed which assessed different equipment/ergonomic changes that could be used to eliminate bending and lifting issues. The solutions:

- pallet lift to raise the pallet so deep bending was eliminated.
- Automated stretch wrapper to eliminate manual wrapping (bending hazard)
- Vacuum lift to pick up bags and place them on the pallets to eliminate heavy lifting
- Ergonomics training to reinforce the best lifting and bending techniques.

Ice on Plant Roof

The plant has a flat roof that the Operators need to access for process checks. During the winter, due to condensation and weather, the roof can get icy. At this time, the roof has a tall rail with a toe cap around it. There was a concern an Operator could slip or stumble and slide off the roof.

Since there was already a rail around the roof, as an extra precaution a snow fence was installed on the railing as a temporary fix. In the Spring, a more durable, permanent solution will be completed. This will include additional laterals on the exiting railing so a person can not slip through and off the roof.

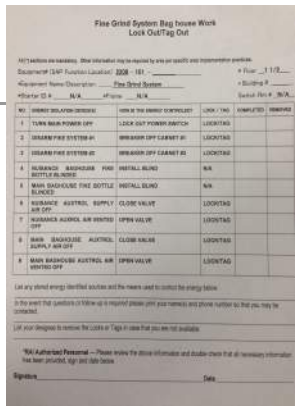
Overhead Hoist

An overhead hoist hangs in front of the control room, which has a wall with a window in it to allow the Operator to look out into the process. This hoist track did not have a stop. The hoist could potentially run into the wall or window of the control room and cause damage or injury.

The hoist track did not have a stop. A stop was put in the track and now the hoist can not progress far enough to run into or through the wall or window.

Equipment Specific LOTO forms

A new processing line was added in 2011. There were no equipment specific LOTO forms for this production line. Each Lock out could potentially be performed in a different way. An evaluation is needed to ensure the hazards are identified and mitigated during maintenance.



Fine Grind System: Bag house Work
Lock Out/Tag Out

An evaluation was performed of the process equipment to determine the electrical hazards that needed to be addressed during a lock out. This information was used to develop an equipment specific form to ensure all employees lock out the same hazards In the same manner.

Donaldson
Grinnell, Iowa

Die Blocks
Die blocks were created to prevent heavy press room dies from rolling unexpectedly during storage and set-ups. By preventing dies from rolling, we prevented potential pinch hazards and prevented dies from rolling off storage blocks onto employees or other objects.

Before

Unsafe Condition: Dies can slide on dies unexpectedly, causing injury

After

Improved condition: Blocks prevent dies from moving during storage or changeovers

C-hook Stand
Occasionally, the C-hook on our crane is removed from the crane. A stand was fabricated and installed in the work area to provide a safe and secure location for the C-hook to be stored in order to prevent the hook from falling and injuring someone or causing damage.

Before

Unsafe condition: Hook was stored between coils or against a wall. Hook could have fallen.

After

Improved condition: When necessary, hook is stored in stand to prevent the hook from falling.

Laser Safety Curtains on Press Machines
A safety curtain was installed on this piece of equipment to prevent injuries by providing an automatic machine guard system that will shut the machine down when an employee enters into an unsafe area surrounding the machine that has been programmed by the curtain's laser.

Before

Unsafe condition: Employees could access back of press machine while machine was running.

After

Improved condition: Laser guard prevent machine from running if employee enters restricted area behind press.

Press Room Payout Reels
Chains were placed as a barrier to prevent employees from entering the payout reel area and getting caught on moving equipment.

Before

Unsafe condition: employees could be injured by moving parts on payout reels.

After

Improved condition: Employee are now prevented from entering payout area.

Press Guarding
Stationary barriers were put in place in addition to no-step matting to further enhance our machine guarding for this new piece of equipment. These permanent barriers added by the company will prevent any employee from entering an area behind the machine where moving parts could cause harm.

After

Safe Conditions: Guards in place to protect employees from moving equipment

After

Safe Conditions: Guards in place to protect employees from moving equipment

General Electric
West Burlington, Iowa

Bus Bar Restructure

The initial situation was that the operator was manually lifting copper bus bars weighing up to 52 lbs. between a series of machines that processed the bars in sequence. The result of lifting the bars throughout shift resulted in back strains of the operator. The solution was to redesign layout of area and to implement roller bars between the machine to eliminate the need of the operator to lift bars between one machine to the next in order to be processed. Not only did they reduce foot print of cell, reduce the time it took to complete job process, but it also greatly reduced the strain on the operator's back.

Benefits: Reduced ergonomic related injury and illness (Back Strain), developed a single piece flow and eliminated inventory, reduced foot print of cell

~~Assembly Lift~~ Restructure

During the door assembly upon stacks, employee were having to adjust working platform (which was not height adjustable) several times while working to gain better access to stack and had to obtain assistance when carrying doors (which are cumbersome due to their size) up stairs of working platform. Both tasks proved to have many hazards associated with it such as: trip hazard, back strain, hamstring strain, shoulder strain, and head injury if to fall into stack.

The solution was to implement an adjustable working platform to raise the employee to different heights needed to work on a stack and to develop a shelf that could be raised to the height of the employee in the stack to allow employee to have access to all materials needed to complete a build. This reduced strain from lifting doors, eliminated trip hazard from carrying doors up stairs, and reduces strain from reaching or bending into stack.

Benefits: Reduced ergonomic related injury and illness (Back/Shoulder/Hamstring Strain, falling into stack from over reaching or work being below waist), greater productivity, accommodating to persons of all heights

Tumbler Lift Project

The issue before hand was that due to the layout of the work area and height restrictions, the operator was not able to put parts into tumbler without excessive reaching and strain on the body resulting in shoulder and back pain.

The solution was to get an adjustable lift that will accommodate persons of all heights that enter the area and they are then able to adjust the lift to the height desired to put parts in comfortably reducing strain.

Benefits: Reduced ergonomic related injury and illness (Back/Shoulder/Hamstring Strain, falling into stack from over reaching or work being below waist), greater productivity, accommodating to persons of all heights

New fixture for Mod 2

The previous method of assembling the 4000 amp AKD 20 bases utilized a fixture in which the base was built in a plane 90º to plane in which it is assembled into the device. Upon completion of the base assembly a sling was used to lift the base from the fixture and the base needed to be manually rotated in the sling to match the orientation of the installed assembly. Also, due to variations in the base plate material (thickness and flatness), the base assemblies would sometimes stick in the fixture making extraction difficult.

The new fixture builds the assembly in the orientation that it is used in the device eliminating the need to rotate the assembly. The design of this fixture also eliminates the effects of variations in thickness and flatness on the removal of the assembly from the fixture. This new fixture assists with ergonomics as well as several pervious safety concerns.

Safety Bump Bar

Prior to this bump bar being affixed to the stacks they are manually moved and their was nothing from stopping the stacks from bumping into each other or an employee and causing injury. These stacks can weigh thousand of pounds depending on which station they are within the assembly line.

This preventive engineering control will "bump" into the next stack or potential employee with a soft roller and will also prevent two stacks from being completely pushed together causing a caught in, or between type of incident

Abbott Laboratories
Abbott Park, Illinois

Guardrails Installed on Roofs in Lake County, IL

Abbott maintenance employees perform work on roof tops on a weekly basis. Because of the risks associated with working at heights, guardrails were installed on building roofs. This eliminated the need for personal fall protection while working on the roofs which reduced the risk of falls. To date the guardrails have been installed on more than 25 buildings at our corporate campus at a cost of more than $1,000,000.

Before

After

Injury & Illness Prevention Program for Abbott Global Engineering

Program Scope

Enhance the safety program within Abbott's Global Engineering Services (GES) Organization to reduce the occurrence and severity of work place injuries as well as increase awareness of job hazards. Included functional areas were maintenance, housekeeping, construction services, project engineering, security, grounds, and utilities.

Program Initiatives

- Integrated safety goals into employees' performance assessments.
- Made safety the first topic of departmental daily kick off meetings.
- Implemented "peer to peer" safe work observation program.
- Conducted routine area walkthroughs by leadership.
- Expanded senior leadership safe work observation program.
- Streamlined near miss reporting system and action plan closure.
- Implemented additional safety signage in high traffic areas.
- Completed an EHS culture survey and implemented associated actions.
- Training completed for all employees on Abbott's "Moving to Zero" safety culture program.
- Implemented root cause analysis process following workplace accidents.
- Completed safe lifting training for all employees and developed ergonomic awareness videos.

Program Results

- Decreased OSHA recordable rate by 51%
- Decreased Lost time case rate by 35%
- As of 1/27, worked 193 days without a recordable accident (approximately 825,000 hours)

Electronic Safe Work Authorization

Abbott replaced its paper safe work authorization permit with a computer-based system in 2013. The system drastically improved safety and operational processes associated with hazard control during Hot Work, Confined Space, Line Breaking & Surface Penetration activities. The system "hard-coded" safeguards into the work authorization process. Hazard control benefits included; streamlined safety procedures; job plans reviewed in advance by on-site fire department & rescue services; complete visibility across a large campus of over 7,000 people; Creation of job-specific hazard identification & control plans; and Documentation control for over 10,000 written safe work permits annually.

Before

After

Fall Protection Installed on Cooling Towers

Abbott maintenance employees perform work on cooling towers located at utilities' steam plant on a periodic or demand basis. Because of the risks associated with working at heights, an A-frame bridge designed with sliding trolleys and attached self-retracting life lines was installed above the cooling towers. Installing a fixed system eliminated risks associated with working at heights as well as ensuring compliance with fall protection regulations. The fall protection system was installed at a cost of $67,000.

Before

After

Valve Pit Confined Space Entry and Fall Protection

Abbott maintenance employees conduct confined space entries into valve pits on a regular basis to perform inspections on steam and condensate lines. To eliminate inherent risks associated with tripods on uneven surfaces, davit systems were installed to allow for 100% fall protection of employees inside and outside the space as well as confined space rescue. The fall protection system was installed at a cost of $12,000.

Before

After

Renwick Production Plant

Hazard Recognition Safety Improvements 2013

There was not a clear indication of the area where fall protection was to be worn while using hoisting equipment

Marked the area with a yellow box to indicate fall protection is needed if employee is within the marked area & hoisting equipment is being used.

Small dust particles were getting under standard safety glasses while compressed air was in use.

Implemented the use of safety glasses with foam seals when using compressed air for better eye protection.

Wheel chocks were hard to see, making safety confirmation difficult. Also, from an ergonomics standpoint, bending and stooping were required to place and remove the chocks.

Replacing all chocks with new style. Handle and sign make these very visible, even from a distance or looking through a mirror. The handle also eliminates the need to bend or stoop.

Discard process required utilization of a forklift to raise pallet to the required height. Installation of lift table allows employees at the lift table to operate controls instead of relying on a forklift operator.

BEFORE

AFTER

Fisher Controls

REDUCING HAZARDS THROUGH PROMOTING SAFER WORK ENVIRONMENTS

Fall protection needed for construction and maintenance personnel.

- Single point anchors were installed every 57 ft. across the roof for personnel to connect their fall protection harness to.

Soldering/hot work areas needed to be relocated to prevent potential fire hazards

- New soldering/hot work area was built to ensure the safety of workers and to meet all regulatory requirements.

MSDS information was kept in 3 ring notebooks for people to look up MSDS information.

- New Windows tablets were purchased and installed to allow personalized lab MSDS information to be accessed via web/Ethernet.

Areas with large volume of Argon and Nitrogen lacked monitoring sensors to alert for potential oxygen depletion hazards.

- Installed oxygen sensors which are monitored 24 hours a day by the security office to prevent personnel from entering into a hazardous environment.

Iowa-Illinois Safety Council Safety Award Program

Pella Corporation – Pella, IA Operations
2014

Shelving Improvements

Many improvements were made in our purchased stockroom such as the pick aisle vs. loading stocking aisle, travel route improvements, new roller pallets and angle iron, new side wall pallets, and other improvements. Featured in the before picture the netting was added to the racking to contain boxes from falling to the floor. However, we still had some items dropping too far, so additional support was added to help in securing and keeping all netting tight as you can see in the after picture.

Before

After

Extrusion Saw

In the before picture, the material was cut with a profile head with insert tooling. Noise levels while cutting with the profile head were 96.0 dB (8-hr TWA), and a peak level of 115.9 dB. The duration of the saw's cut action was 10 seconds, and the noise level with the saw just running (not cutting) was 98.7 dB.
In the after picture, we implemented using a saw blade to cut a profile for the material. With this improvement, the noise level of the saw was reduced to 88.4 dB (8-hr TWA), and 111.4 dB at peak level. The duration of the saw's cut action was reduced to 4 seconds, and the noise level with the saw just running (not cutting) was reduced to 89.5 dB.

Before

After

Stockroom Improvements

In the before picture, pallets of material were set in the receiving area by our forklift driver. Then team members had to manually lift many items from the floor level to be received in and put away in their proper locations.
In the after picture, the pallets are placed on rollers to reduce the need for team members to bend to floor level. Improved ergonomics has reduced bending and lifting, improved productivity and reduced fork lift traffic in the receiving area.

Before

After

Gasket Roller

In the before picture, the operator rolls in gasket material which is difficult and requires extra pressure depending on a variety of factors. Operators had to bend over further to apply additional downward pressure which would further fatigue muscles in their hands, arms, shoulder and back.
The improvement in the after picture shows the roller arm which has air supplied to it. This places the necessary force to roll the gasket material into the part. The operator can stand upright and pulls the rollers across the material.

Before

After

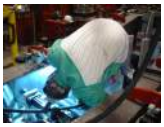
Hazard Control Recognition Program

Submitted by

John Deere Davenport Works

Tack welding of the Articulated Dump Truck frame

Before Welding fixture was located on the floor causing the operator to weld in many awkward positions for an extended amount of time. Welding in these positions also caused quality issues.



After The fixture was mounted onto synchronized powered lift tables that allows the fixture to be raised and rotated to different heights and positions allowing the welder to work in proper ergonomic positions.

Kitting parts in the fabrication area

Before Procuring parts on the bottom of the stack required the operator to bend over and twist to reach parts many times during the shift. Because of the height of the rack parts stored on the third rack also required excessive reaching over shoulder height.

After Risers were fabricated to allow parts stored on the bottom racks to be at an elevated height to eliminate bending over. Also the height of the rack was shortened to easily reach parts on the top rack.

Installing flag pin that attaches bin box to articulate dump truck

Before To insert the flag pin it required the operator to drive the pin in using a 5 lb. hammer in a tight area above shoulder height and taking up to 40 swings to completely seat the pin.

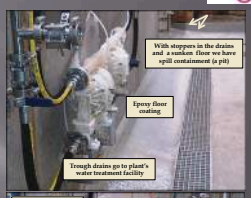
After A c-clamp style device was implemented that was driven by a air tool and reacted against the frame to easily draw the pin the in. It requires no force, arms are not above shoulders and the install time was significantly reduced.

AGROPUR

Hull, Iowa

agropur
Cheese and Ingredients Division

Circumstances: Employees had to transport chemicals to various locations in the plants using 55 gallon drums or smaller containers filled from totes.
Solution: Build a bulk chemical room with a plant wide chemical distribution system.



Agropur Inc., Cheese Plant: Hull, Iowa

BULK CHEMICAL STORAGE

agropur
Cheese and Ingredients Division

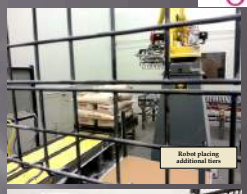
Circumstances: To bring the plant to Arc Flash compliant levels.
Solution: To engage a 3rd party Arc Flash audit of the entire plant to bring forward deficiencies and recommendations. Implement those recommendations. To provide one line drawings, equipment, and necessary documentation to be OSHA compliant.

Agropur Inc., Cheese Plant: Hull, Iowa

ARC FLASH

agropur
Cheese and Ingredients Division

Circumstances: To eliminate the physical aspect of hand stacking 55kg bags of product on a pallet. At times above head height.
Solution: Purchase a mechanical means of stacking the product.



Agropur Inc., Cheese Plant: Hull, Iowa

PICK & PLACE PACKAGING ROBOT

National Railway Equipment Company
DIXMOOR LOCATION

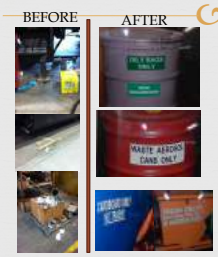
IISC SAFETY AWARD FOR HAZARD CONTROLS

Portable Ladders vs. Portable Stairs

- Some areas are always a hassle to use a ladder especially when working from it.
- NRE implemented more portable stairs for employees to use and to be safer when working from an elevation.

Waste Hazards

BEFORE AFTER



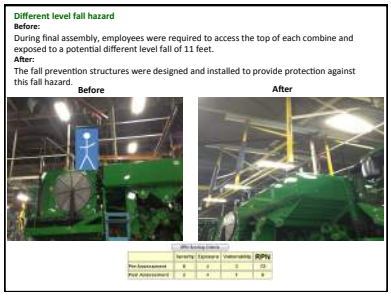
- Implementing the controls of Labeled containers for aerosol cans and oily rags to help employees with the proper locations for disposal. Also color coding our waste receptacles for wood, trash, and metal etc.

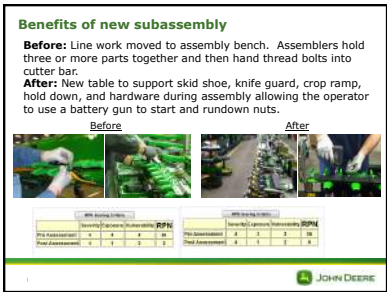
Fire Extinguisher Staging Areas

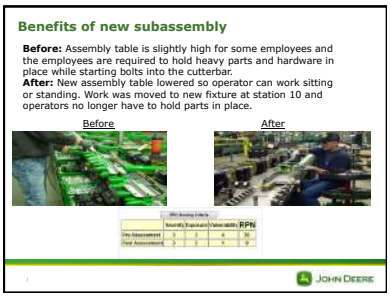
- We found a problem that employees were not replacing fire extinguishers when they had discharged them.
- So we have set up staging areas for the employees to know when its in the Green Area its charged to charged so they can replace the discharged on and a Red Area were they are to place their discharged extinguishers.

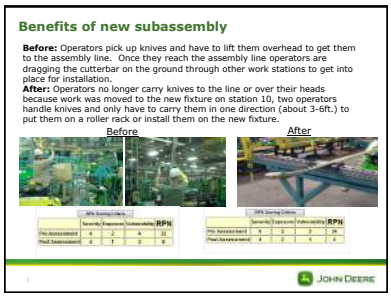
Thank You… From,

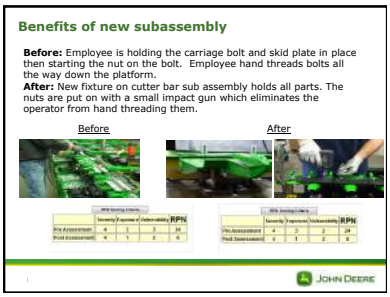
David Dunn
Safety and Wage Benefits Manager
Harvester Works
563-343-2607

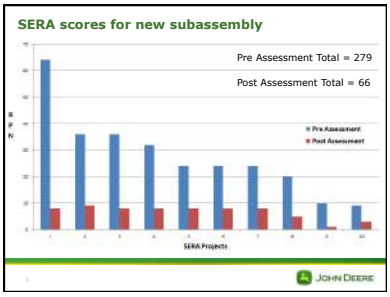












Hagie Manufacturing
Clarion, Iowa

Air Floats Make Moving Machines Much Safer

For many years Hagie pulled the machines down the build line with a mechanical device, causing many issues from strains and pinched fingers to bumps on the head etc.

We now install air floats on the machines and two people can manuver and position the unit with almost no effort at all. This was a huge improvement in our hazard control efforts.

Safety Technician Add

As Hagie Manufacturing has grown, it became very apparent that our safety department needed to grow. So, in 2013 we added a full time Safety Technician. This position has made a huge improvement in our processes and our ability to serve our customers in the area of safety.

Guarding on Lasers

At Hagie we have laser cutting equipment that runs 24 hrs a day. This equipment has automated material handling equipment and automatic loading systems. Original guarding for this equipment consisted of single beam light curtains. These curtains were very labor intensive as they continually needed to be adjusted and aligned. They were also easily damaged. The decision was made to remove the original light curtains and install area protection floor matting around the lasers. This guarding is much more applicable to the protection needed and very durable. The operators love it and their job was made safer and easier.

Other Projects In Hazard Control

Our Safety Department challenged all other departments on their “Road To Be Great” initiative to redesign their weekly Safety audits. Great Results!

Worked with our engineering groups to design a new LO/TO system for actual machines being worked on.

Initiated a new system for oil cleanup. We are now using a service where they bring us oil absorbing pads, we use them, put them in a barrel, they come pick them up, launder them and return them to us for re-use. This eliminates cost of disposal of the old media and is a win-win for all.

We added a new medical room in our west campus building. We now have medical treatment rooms in both campuses.

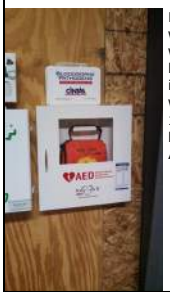
We implemented a project to rebuild all of our steel pallets that need repair.

Indianola Municipal Utilities
Indianola, Iowa

Warning lights and signs were added to warn the public when vehicles are exiting the facility that crosses a public sidewalk. This area gets a lot of traffic due to the Post Office being right across the street. As soon as the door starts to go up, the lights begin to flash. A warning light and sign is located on each side of the overhead door.

This is the door our Generation Operators enter and exit with the company vehicle on a daily basis. There are a lot of kids that walk to the Post Office with an adult to get the mail. More times than not, the kids are walking ahead of the adult. Most of the kids aren't paying attention and it's difficult for our employees to see them. Our vehicles are equipped with a backup alarm and we found that backing into the garage and pulling out didn't make a difference. That's when we installed the warning lights and signs. This has seemed to help get the kids and adults attention. This system was designed, built and installed in-house.

Previously our electric utility didn't have any AED's located at our facilities or in the field with our crews. This year we installed 6-AED's located at the following locations: main office, shop, warehouse and one in each of our three lead jobsite vehicles.



Even though we are located and work within Indianola city limits, we felt it was important to add AED's in our buildings for a quicker response and in the field with our crews who work with electricity that ranges from 120 to 13,200 volts. All of our crews have been trained in how to operate an AED.

It was difficult for our crew members to access the operator's chair on our digger trucks with the original equipment being a small narrow platform. We added a walking platform all the way around allowing the operator to be able to get off and on easily. The stairs going up to the platform were also made wider.

After

The original setup was extremely dangerous. Employees would stand on a narrow elevated platform and then step onto the operator platform. Getting down was even worse if the small platform wasn't right under the operator. This is where we would see employees jumping from the operator platform to the bed of the truck. No one was injured getting on and off the old system but it was going to be a matter of time before they did. With the newly added walking platform, employees can get off and on the operator platform with a lot more area to move around no matter which position the boom of the truck is in. The stairs going up to the platform were also made wider.

A&I Products Manufacturing
Rock Valley, IA

A&I Products Manufacturing - Rock Valley, IA

Before: Hobbs were unguarded, had blocked access panels, non-compliant e-stops, and had obsolete Lockout Tagout procedures.
Hazard: Entanglement and pinch points.
After: Lockout Tagout audit completed, LO/TO placards placed on each machine, employee LO/TO training completed. Hobbs were hard guarded on back and sides, and fitted with: light curtains at access point, secondary electrical disconnect, lockable air disconnect, and emergency stops. Layout change allows access to all panels. Ergonomic mats also placed at machines.

A&I Products Manufacturing - Rock Valley, IA

Before: Coolant was added to each of four interconnected horizontal machining centers by extending a 100 ft. section of hose to each unit multiple times each week. Each unit holds 300 gallons of coolant.

Hazard: Trip hazard caused by extended hose on floor and ergonomic concern pulling hose to each machine.

After: Coolant and water hard piped to each machine from a single source. Trip hazard and pulling requirement eliminated from operation.

A&I Products Manufacturing - Rock Valley, IA

Before: Improper storage of paint and solvents.

Hazard: Increased risk of fire or spill.

After: Replaced unapproved containers, eliminated open containers, added safety containers, added spill containment, and improved grounding.

A&I Products Distribution Center
Rock Valley, IA

A&I Products Distribution Center - Rock Valley, IA

Before: Receiving department employees would unpack incoming parts and place in totes. Totes were then trucked 100 ft. away and loaded by hand on a conveyor taking them to warehouse storage.
Hazard: Employees were required to lift and lower parts and 70 lb. totes to and from floor level and above waist level throughout the day. Excessive forklift traffic.
After: Layout changes allowed incoming parts to be unpacked and loaded in totes at the conveyor. The use of pallet stands eliminated all bending and lifting. Roll-top tables were built in-house next to the conveyor line, allowing loaded totes to be slid directly onto the conveyor. Tote weight limit was lowered to 50 lbs. These efforts have reduced forklift traffic, eliminated almost all lifting, bending, and reaching and have reduced the handling (touches) of parts from seven times to two.

A&I Products Distribution Center - Rock Valley, IA

Before: Glass department employees would package cab glass on a standard wood top table.

Hazard: Employees were required to walk around the table to staple each corner of the box. Friction of the wood top and cardboard box made removing the packaged glass difficult.

After: Roll top tables were added. These allow the operator to work from one location as they can spin the box effortlessly to staple each corner. The tables reduced all push and pull forces required to remove the package glass from the table.

A&I Products Distribution Center - Rock Valley, IA

Before: Blind intersections required equipment operators to pull into cross aisles to see oncoming traffic.

Hazard: Industrial vehicle traffic.

After: Added 360° mirrors at multiple blind intersections. Operators can now see oncoming traffic without placing themselves in the line of fire.

A&I Products
Klemme, IA

A&I Products - Klemme, IA

Before: Clutch Teardown process. Employee required to lift and lower clutches in excess of 100 lbs from and to floor level. Teardown process required use of multiple hand tools. Teardown process created a dusty/dirty environment.
Hazard: Air quality, excessive bending, lifting, lowering, reaching and repetitive hand motion.
After: Process was changed to include; running incoming used clutches through a newly installed parts washer, enclosed negative pressure work table with hepa air filtration, adequate PPE, waste disposal procedures, and employee training; all to eliminate dusty/dirty environment. A hoist was also added to eliminate excessive lifting/lowering. Hand tools were replaced with powered tools to reduce repetitive motion stresses. Ergonomic mat added to reduce employee fatigue. Improved lighting over work area.

A&I Products - Klemme, IA

Before: Water pumps weighing 54 lbs were lifted and lowered from shipping containers by hand.

Hazard: Repetitive bending, lifting, lowering and reaching.

After: A custom lifting device and portable hoist were added to the operation; eliminating all ergonomic hazards.

A&I Products - Klemme, IA

Before: Clutch packaging process. Completed clutches, in excess of 100 lbs, were lifted from ground level to a workbench where it was packaged. The packaged clutch was then lowered to an outbound pallet.

Hazard: Repetitive bending, lifting, lowering and reaching.

After: A hoist and pallet stand were installed which eliminated lifting unpackaged clutch. Clutch is hoisted into packaging on newly installed conveyor. Packaged clutch is rolled across conveyor to outgoing pallet that now sits on a pallet stand/turntable which eliminated lowering and reaching.

ROCK ISLAND RIIS INTEGRATED SERVICES

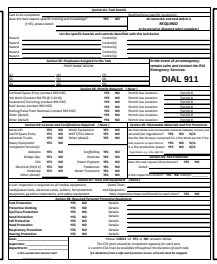
2013 IISC Hazard Control Safety Award Submission

February 02, 2014

Employee Pre-Task Planning

Before

Pre-task planning has always been inconsistent within the our organization and was never done in a complete and encompassing manner.


DIAL 911

After

We were able to institute a Safe Task Assessment (STA) form for each employee to complete before they begin a task, to assist the planning of their work and then working the plan, identifying improvements needed and missing controls alike.

When we access the North Side Pier on the US Government Bridge, we wanted to ensure we had a fall protection system and plan in place to protect employees from slipped and/or falling into the river, any time of the year.

Before

After

The rooftop top of the US Government Steam Heating Plant does not have an adequate parapet wall for fall protection. We wanted to protect against any type of leading edge fall while working on the rooftop with adequate 'no-go' zone.

Before

After

Snap-On Tools
Algona, Iowa

Form Weld Department-Snap-on Tools, Algona Plant: Conduit on the floor created a tripping hazard. The old conduit cover did not resolve this hazard. The old cover was replaced with a wider, more visible, safety cover. This eliminated the safety hazard and provided a safer work environment.

Before

After

Main weld line-Snap-on Tools-Algona Plant: an upender used to position cases for welding, presented potential pinch point hazards to the operator. Guarding was added to the guard rail to prevent operators from accidentally placing a body part in the pinch area/ resulting in injury. Guarding is tool removable, which allows maintenance to gain access to the upender as needed for preventive maintenance/repairs.

Before

After

Stores Department-Snap-on Tools- Algona Plant: Ergonomic hazard present when employees lifted heavy part boxes from above shoulder height to retrieve parts (potential for back/shoulder injuries). To eliminate these concerns, heavy part boxes were placed on lower shelves & the end of the boxes were cut open so employees could retrieve parts without having to remove the box from the shelf.

Before

After

Weld Depart-Snap-on Tools, Algona Plant: Foot pedals were not wired consistently as to what function each pedal performed – welding or retracting(opening the welder arms). To remove the hazard of an operator accidentally activating the weld function and being injured, foot pedals were uniformly wired so the left pedal welded while the right pedal retracted the welder arms. Labels were placed on the pedals to reflect their function.

Before

After

2014 Safety Awards Hazard Control Recognition Program

Iowa Illinois Safety Council
2014 Professional Development Conference & Expo
April 23 – 25, 2014

Improved Coil Line Guarding

Before

Previous barrier allowed access to pinch points and contact with sharp edge of coil.

After

New guarding prevents reaching in and accidental contact with coil feed process.

Water Jet Replaced Die-Cutting

Before

Steel rule dies were used to cut fabric into shapes for furniture and other parts in the motor homes. Dies were sharp, and some weighed 100+ pounds, requiring 2 people to handle them. Set-up and running of machine were time-consuming and hazardous.

After

Water jet material cutter requires only the material to be laid out for cutting on the bed of the machine. Fabric is cut using a fine high-pressure stream of water. Machine is guarded with pressure-sensitive safety mats and hard railing. Sharp, heavy steel rule dies and old machine were eliminated.

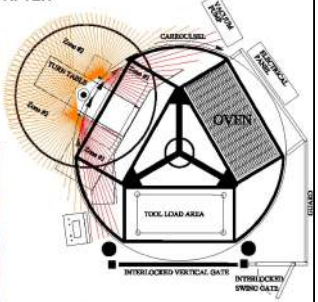
Wire Crimping station has adjustable legs and a tilt platform for the wire crimper to provide better angles to the work. Leg "kits" are being added to many other work stations to adapt to a variety of employee heights.

Vibrating tool replaced disc grinder for ceramic tile floor rework, practically eliminating dust exposures that had required respirators.

Laser Scanners – 2 Zones – No Go unless clear of people. Shuts down if people enter either zone.

Laser Scanners control movement of turn table and carousel. Alarm sounds to alert operator for cycle start. If operator isn't clear, cycle doesn't start. Operator must reset cycle at control panel.

AFTER



Interlocked Gates and Railings control back & sides. Infrared oven eliminates gas-fired oven hazards.

Poet Biorefining
Coon Rapids, Iowa

Risk Registry

Before

- No formal process of addressing hazards and documentation of completed task.

After

- Spread sheet with documentation of Department, risk description, accountable manager, repaired by, expected completion date, completed date, Mitigation ideas/ plans. This is reviewed monthly by management team.

Pro-Active Safety Culture

Before

- Normal near miss reporting. Re-active safety culture. Near Miss is reported and then correct the problem after someone is injured or equipment affected.

After

- Moving towards Pro-Active safety culture we have went to forward thinking. Employees filling out Safety Observations to recognize safety issues before they became a Near Miss or worse. Increase in whole plant awareness of surroundings and issues that could cause harm to other employees as well as ourselves.

Management System

Before

- Critical information being stored on computer in different locations and being kept by different people.

After

- The Management System is the instrument for facilitating the implementation of the POET Vision, Mission and Culture. The Management System is aligned with the Strategic Plan and Key Performance Indicators as tracked within the Scorecard.
- These policies and statements are communicated to all the Coon Rapids employees as part of the orientation process and as part of an ongoing training and development process.

Contractor Safety Manual

Before

- Single page for contractor safety training. Relied on contractor to do most of the training in house for their employees. It briefly discussed the hazards that could be encountered at the facility.

After

- Full booklet outlining hazards at the plant. Also contains 9 rules to live by, that breaks down everything from permit use to cell phone use. Booklet is used to fully train all contractors and visitors before they do any work at the site.

Proliant Inc. Lytton Iowa

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Iowa - Illinois Safety Council Award Program

Hazard Control

Proliant Inc. Lytton Iowa

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Iowa - Illinois Safety Council Award Program

Stairways Replaced Ladders

- The use of ladders created a potential hazard for employees traveling from roof to roof

- Corrective action was implemented to replace all ladders with stairways for all travel on the roof

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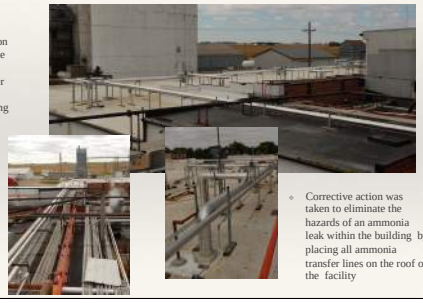
Iowa - Illinois Safety Council Award Program

Relocation of Ammonia Lines

- A hazardous working condition existed within the facility with ammonia transfer lines distributed inside the building



- Corrective action was taken to eliminate the hazards of an ammonia leak within the building by placing all ammonia transfer lines on the roof of the facility

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Iowa - Illinois Safety Council Award Program

Safety Step Guard Rail

- Corrective action was implemented by installing a safety rail on the conveyor to stop employees from stepping over the conveyor line

- A hazardous condition was revealed by an accident investigation report of an employee injuring himself by stepping over a conveyor line

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Iowa - Illinois Safety Council Award Program

Chemical Bulk Storage Implemented

- A hazardous condition existed with the handling of chemicals when employees carried them in the work place

- Corrective action was taken by installing bulk storage containers and distributing chemicals through pumps instead of physically handling the chemicals

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Proliant Inc. Lytton Iowa

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Iowa - Illinois Safety Council Award Program

Dryer High-Temp Safety Shut-Off Controls

- After a review of our current dryer systems, it was determined that there was no safety mechanism in place to prevent the system from over-heating

- Corrective action was implemented by installing temperature alarm controls that would shut the unit down by automatically closing gas lines in case of over-heating

Iowa-Illinois Safety Council Safety Award Program

Pella Corporation – Sioux Center Operations
2014

Compressed Air Clean-Up

Common clean-up practice at our facility is to use compressed air to remove debris from machines where other tools can not reach. Our debris is mostly made up of sawdust and metal shavings. This practice was the cause for some eye injuries in our plant. Compressed air clean-up was removed from identified risk areas on all final lines and replaced with a vacuum system.

Before

After

Pre-finish Paint Booth

Prefinish Paint Booth – Ergonomic Improvement
Previously, the team members had to manually adjust the guns for every profile change. They were required to reach inside the booth while bent over in an awkward position
Now the operators set the profile by selecting a specific program for each profile and the guns automatically adjust for the profile needed.
Reduced Bill Brough Score from 52 to 0
All moving parts are now outside the paint booth and guarded.

Before

After

Large Fixed Awning Drill

This job required high forces. Inconsistency of force required, causes the operator to use high force every time. Drill gets stuck in the frame butyl, requiring force to pull it out of the drilled holes. Aluminum filings mixed with butyl get into the part nest and on the floor.
Now this process is Fully automatic machine - only requires the operator to load the part, close the guard door and select the color-coded part length button. Precision drilled holes do not go into the frame butyl. Drill filings contained within the machine. Table height is adjustable for best ergonomics
Reduced Bill Brough Score from 58 to 32

Before

After

Frame Cell – Part Staging & Presentation

Frame Cell – Part Staging & Presentation
To supply the final line with needed parts, a team member lifted one end of a 35lb. tote above shoulder height placing tote on a 45° shelf to present to the team member using the parts.

Modifications were made to part presentation station so that the team member can lift with both hands/arms placing the tote on a shelf just above waist height.
Improved Bill Brough Score from 26 to 14

Before

After

2014 IISC Safety Awards
Hazard Control
Recognition Program

Submitted by
Winnebago Industries, Inc.
Charles City Facilities

Awning Installation

Old Way

Awning is handled by hand by 2 people

New Way

New Method – Hoist installed to assist awning handling.
Now requires only one person. Less stress to back and shoulders.
Much easier to guide and install.

New Sanding Booth
Combined Several Individual Locations
Improved Lighting & Dust Capture

Sanding Table/Dust Collector Cleaning

Before

Cleaning of Downdraft Dust Collection systems had been done from below the table surface. Required awkward position and potential breathing in of dust.

After

Access from top of table and special vacuum attachment allows easier cleaning.

Added Self Closing Door to Empty Aerosol Can Storage

Before

Opening in top of drum potentially allowed flammable vapors to escape

After

Self-closing door keeps flammable vapors in drum

Combustible Dust Prevention
Cleaning of Pipes, Ceilings, and Work Areas
Are On-Going Projects for Both Buildings

Buildings divided into zones. Zones cleaned on rotating schedule.

Russell Construction
Davenport, Iowa

Fire Extinguishers placed on the ground or floor.

Easily knocked over
Not easily seen

When work was slow, we had some carpenters build fire extinguisher stands that will be used on every project. This creates more visibility and still provides some flexibility to relocate fire extinguishers as the jobsite changes.

Extension Cords Exposed to Sharp Metal Edges

This was a recurring issue on jobs when new metal stud walls were starting to get built. We made it a standard practice to identify areas where cords could be run and use scrap lumber to fill in the bottom track to eliminate the exposure to sharp edges. This item has been added to our metal stud/drywall site safety orientation.

Executive Safety Walkthroughs

Before

- Project executives job visits were more focused on Schedule & budget.
- Perception from employees in the field that upper management did not look at safety issues.

After

- A monthly safety walkthrough is conducted with each Project Executive.
- Increase visibility of upper management on jobsites.
- Increase opportunity for upper management to be directly involved with safety efforts.

Hillshire Brands

Storm Lake, Iowa

Possible Hazard:
Hydraulic oil is not only a food safety concern, but an environmental one as well.

How Hazard Was Controlled:
At our plant, we switched out all of our hydraulic oils with a Food Grade Hydraulic Oil that not only is approved for working in proximity with our processed poultry, but also has much less of an environmental impact if there is a large spill at our facility.

To prevent employees from having to climb on top of trailers to readjust strapping and tarps for our poultry trailers, we developed a lift pulley system. Employees will attach the pulley cords to the tarps to raise and lower for washing. They no longer have to stand on ladders to complete this task.

Before

After

Possible Hazard:
Employees not knowing who they need to address issues to quickly and efficiently by sight.

How Hazard Was Controlled:
We use multiple colors for our bump caps to identify who is who in our plant. The colors we use are as follows:
* **White** * identifies Management
* **Green** * identifies Supervisors
* **Gray** * identifies Maintenance
* **Blue** * identifies Team Leads
* **Yellow** * identifies Qualified Employees
* **Orange** * identifies Quality Assurance
* **Purple** * identifies Trainer Coordinators
* **Black** * **identifies Visitors**
* **Red** * **identifies New Hires**

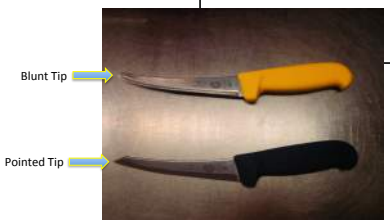
Our **Red** and **Black** hats were chosen to draw attention the groups of people we felt would have the least knowledge and experience out on the floor. We felt these colors stood out from the rest.

Possible Hazard:
Employees getting accidentally poked with knives.

At our plant, we have 2 different sets of knives:

*Yellow handle knives are ground down to a blunt tip to prevent pokes through chain gloves and to prevent injury in close working areas. They are used for basic cutting of meats and skin.

*The black handle knives are used only by employees who need to penetrate through skin and muscle.



DuPont Pioneer

Johnston, Iowa

Slip / fall hazard when employees were walking down the river rock. Added railing to use when walking in slippery conditions and a section of sidewalk that leads to the parking lot.

Before

After

Employees were cutting across the overhead door approach and in slippery conditions reported falls and near misses. Created a new walkway with railing for discharge to parking lot.

Before

After

Work on strobic fans and condensing units around campus required maintenance to bring out a ladder for access. Once up on the unit there was not proper fall protection.

A Similar Configuration to Pioneer's

Fall protection Hazard – Rather than just add a tie-off point we decided on a catwalk system with a guardrail. This allowed better access and movement.

Ladder Use – Many of these units have rock around them. Setting up a ladder properly was an issue. Adding an access ladder to the catwalk eliminates the need to carry and setup a ladder each time maintenance is needed.

Ergonomics Initiative-An integrated approach

The pilot group consisted of 300+ employees across 3 locations, with an extensive education program, and multiple program elements as outlined below:

Work SAFE
This was designed as a voluntary program, to exercise target muscle groups to improve long term strength and flexibility.

Pain and Injury Workshop
This workshop targeted managers and employees to encourage reporting, discuss pain reporting, and discuss the process when an employee reports pain.

Ergonomic Tools and Marketing
This campaign was designed to increase awareness and adoption of ergonomic tools.

Ergonomic Protocol Committees
These committees reviewed current practices and created ergonomic best practices.
Some groups also created ergonomic audit teams led by trained assessors.

Ergo Olympics
This is an incentive program to reward adoption of ergonomic best practices and raise awareness around ergonomics.

Voluntary Pain Reporting System
This system used a modified Wong-Baker scale to allow people to monitor their personal health and wellness and encourage early reporting of symptoms.

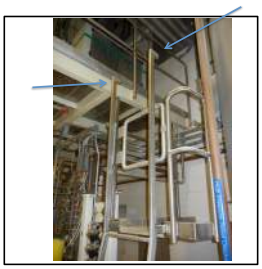
Results

- 17% decrease in overall injury rate.
- Decrease in severity of reported injuries.
- People who participated in Work SAFE reported reduced Wong-Baker levels (Average 1-2 levels).
- One in-house designed ergonomic tool was able to reduce forces an estimated 47 tons of exertion/researcher/year.
- We trained 40 new ergonomic assessors with a list of 15 additional people committed to training in the near future. These people were instrumental in developing ergonomic best practices.
- Awareness and positive perceptions around ergonomics also increased.
- Elements of this initiative are now being implemented at research and production locations for Pioneer.

General Mills-Cedar Rapids Plant

Safety Improvements

Ladder Safety Rail Improvement



- Our safety standard for all ladder side rails is to fabricate or modify them to have an "L or T" stop on the top of ladder rails. This gives the climber a physical cue that they are at the top. Inattentive employees have fallen off straight ladder rails!

Medical Emergency Preparedness

In a medical emergency, minutes count. To improve emergency response, we have installed these features in each of our plant's three First Aid Rooms

- Blue Box (left) when activated, summons the entire First Responder Team over their radios, that someone needs help!
- The red "hotline" phone **instantly, automatically** dials our local EMS service when handset is lifted
- Standard **black** phone is available for use in contacting medical providers
- **Red** button (right) Activates special strobe lights on our roof, which are located near our three First Aid rooms. This lets local EMS crews know what area of the plant they need to respond to, as they approach our plant entrance.

Self-closing Gates

- Is your facility still using **safety chains** to guard ladders and platforms? Custom built, stainless steel, spring-loaded, self-closing gates provide long standing protection to platform openings over 4 feet in height.

Flint Hills Resources

Headquartered in Milwaukee, Wisconsin

Flint Hills Resources Algona Iowa

Steam traps located around the facility presents a significant hot surface hazard. Steam trap surface temperature can reach 350 degree Fahrenheit.

Steam trap guarded

Steam trap unprotected

An employee recognized that the hot steam traps were located in areas where employees can inadvertently come in contact with traps. As a proactive measure the employee constructed guards around the hot steam traps to prevent employees from coming in direct contact with the hot steam trap.

Flint Hills Resources Dubuque Iowa

A potential hazard when sampling hot asphalt is burn to the hand. The sample container is held using the hand during the sample process.

Hot Asphalt Sampling Tool

Sampling Hot Asphalt

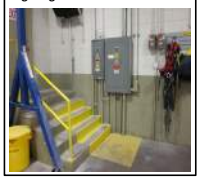
An employee at the facility recognized the potential burn hazard and manufactured a sampling tool to keep the employees hand away from the hot asphalt. The sample tool not only reduced the potential burn hazard but provide better control over the sample.

Flint Hills Resources Davenport Iowa

An employee noticed that there wasn't the minimum required access and working space in front of lighting panels per the National Electrical Code. The steps in front of lighting panel obstructed the safe operation and maintenance of the lighting panel.

Corrected Lighting Panel Clearance Hazard

Lighting Panel Clearance Hazard



The steps entering the shop bay were reconstructed to allow for the safe access and working space in front of the lighting panels. Due to the employees attention to detail and knowledge of the National Safety Code this hazard was identified and correct.

Flint Hills Resources Davenport Iowa

During a Health and Safety Self Assessment it was identified by an employee that the ramp leading to the valve was particular steep and was a potential hazard when accessing the valve.

Corrected Potential Hazard to Access Valve

Potential Hazard of Steep Access to Valve

The concerns was brought to management and a proposal to correct the potential hazard was drafted. A vertical walkway with hand rails and toe board was installed. In addition a valve stem extension was added to the valve for easy access. This greatly improved the use and access to the valve.

Flint Hills Resources Bettendorf Iowa

Noise-related hearing loss has been listed as one of the most prevalent occupational health concerns. Thousands of workers every year suffer from preventable hearing loss due to high workplace noise levels. Exposure to high levels of noise can cause permanent hearing loss. Neither surgery nor a hearing aid can help correct this type of hearing loss.

Portable Pump

Skid Steer

As a pro-active measure the employees purchased and posted signs to identify equipment that required hearing protection and the level of protection needed. These signs helped remind employees of the noise hazard associated with operating the equipment and the level of protection needed.

Illinois Association of Electric Cooperatives
Springfield, Illinois

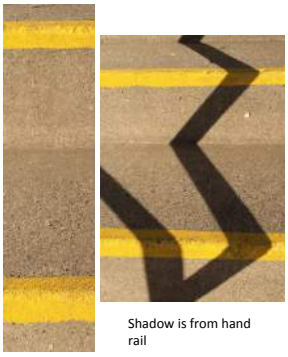
Installation of New Tornado Warning Alarm

Notification to our employees to proceed to the basement during a tornado warning was usually done through our paging system. During a drill it was discovered that the page was not heard in certain areas of the building and offices when employees were on the phone.

The safety committee recommended an alarm be installed with a sound different from the fire alarm that was not connected through the phone or fire alarm system. Our alarm was recently installed and tested to make sure it was heard throughout the building. It can now be heard everywhere!

Enhancing Stair Treads for Visibility

The stairs to our loading dock door entrance are concrete. Many small deliveries for example: FedEx, UPS, and other supplies are made to this area rather than the loading dock. The stairs edges were non-contrasting which can cause slips, trips and falls. The stair edges were painted with yellow to enhance their visibility and clearly highlight the step edges.



Shadow is from hand rail

SDS Availability

As required we have Safety Data Sheets (formerly MSDSs). A main file with all of the SDSs was kept in one area and a book was kept in each department with sheets that pertained only to them. While we subscribed to "MSDS Online" for quite a while, we had not rolled it out to our employees to access.

We completed the rollout in November and employees can now not only can access the SDSs by the books, online from their desktop, and on their mobile device as well. The tech options ensure that they have the most current SDS at their fingertips at all times!

2014 Iowa-Illinois Safety Council's Safety Award Program

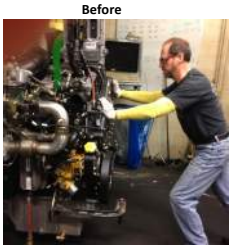
John Deere
Engine Works
Waterloo, Iowa

John Deere Engine Works
Engine Pusher

Before: Operator was required to push a 4,500 pound engine down an overhead conveyor line. It took approximately 150 foot lbs to start the movement and about 100 foot lbs to sustain the movement. Risks in performing this task involved back, shoulder and arm strains.

After: An electric pusher and fixture was designed to move the engine down the conveyor resulting in a total elimination of the existing ergonomics risk.

Before



After

John Deere Engine Works- Waterloo, IA

John Deere Engine Works
Lift Table Installed

Before: The operator is required to bend over to install an engine camshaft. Performing this task resulted in back and arm strain related injuries.

After: A new lift & rotate table was installed resulting in a neutral body position to perform the task. This resulted in a significant reduction of back and arm strain related injuries.

Before

After

John Deere Engine Works- Waterloo, IA

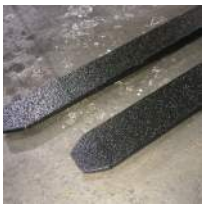
John Deere Engine Works
Forklift

Before: While moving slick surfaced materials they had a tendency to slid off the forks. This potential situation has resulted in near miss types of accidents.

After: To resolve this potential risk the forks were coated with a poly coating material, similar to truck beds (Rhino-linings). Cost was approximately $100 for the pair of forks. Material slipping off the forks has been greatly reduced eliminating this potential risk.

Before

After



John Deere Engine Works- Waterloo, IA

John Deere Engine Works
Lights on Forklifts

Before: Forklift & pedestrian safety is an extremely important safety concern. The visibility of fork trucks is especially important due to the quiet nature of battery operated models.

After: A new Blue Light System has been added to all vehicles to increased visual awareness as trucks, pickers and scooters approach pedestrians from blind corner.

Before

After

John Deere Engine Works- Waterloo, IA

John Deere Engine Works
Organized Contico

Before: Engine parts are delivered to the assembly line in large containers called contico's. Employee are then required to lift these parts out of these contico's to add to the engine on the line. This potential exposure of bending over to retrieve these parts can result in back, arm and shoulder strains.

After: Parts are now organized on carts to make it easier and faster to retrieve the parts to assemble engines on line. This potential exposure has greatly eliminated back, arm & shoulder strain injuries.

Before

After

John Deere Engine Works- Waterloo, IA

Deere & Co.
Moline, Illinois

Deere & Company Hazard Control

Before

- A handicapped employee slipped in the parking lot while entering the building.

After

- Maintenance installed a handrail along the walkway.

Deere & Company Hazard Control

Before

- Employee fell through the sub floor tile in the computer room.
- Due to poor alignment of the tiles.

After

- Installed a mounting bracket on the compromised tile.
- Filed a work order to re-align all tiles in the computer room.

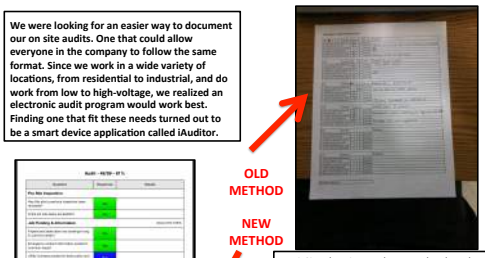
Deere & Company Hazard Control

- 4640 office employees at Deere & Company.
- Web-based solution for managing and identifying office ergonomic issues
- 30 minute self assessment resolving ergonomic issues.
- Monitor issues and track improvements from one to multiple locations.

ergopoint OFFICE SUITE

Tri-City Electric
Davenport, Iowa

We were looking for an easier way to document our on site audits. One that could allow everyone in the company to follow the same format. Since we work in a wide variety of locations, from residential to industrial, and do work from low to high-voltage, we realized an electronic audit program would work best. Finding one that fit these needs turned out to be a smart device application called iAuditor.

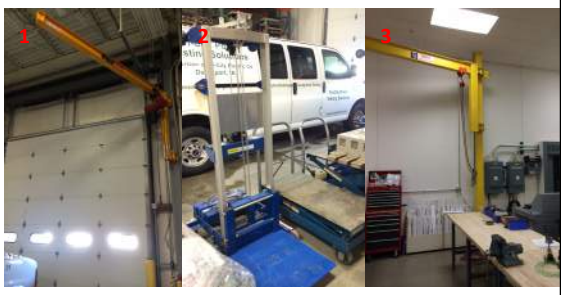


OLD METHOD

NEW METHOD

A Tri-City Electric template was developed and made publically accessible through the IAuditor application. Anyone from the foreman to our president can download this free application to his or her Ipad, Iphone, Android or any other capable smart device supplied by the company and complete an electronic audit. The questions are on the template, one just has to select: Yes, No, or N/A. There are options to insert a photo as well as type a description of the hazard found. After the audit you can create a PDF version and send it in an email.

In the past, heavy circuit breakers had to be maneuvered off trucks and onto work benches in the tech shop. Many times, this required lifting. Therefore, we developed a "zero-lift" procedure for moving them from truck to bench. The breakers come in on a flat bed truck, a hoist picks them down onto a cart, where they are pushed into the tech area, then hoisted up onto the table. This helps significantly reduce strains/sprains risk.



Many times we need to lockout an entire panel to prevent unauthorized access and an effective LOTO policy. By placing individual breaker locks on the breakers, the panel won't always close and sometimes they are too close together. Therefore, we developed a custom panel lock.

Another piece of smaller ½" conduit of the same length is slid inside the bigger, attached conduit. This prevents access to the screws so the bar cannot be removed. Then, a hole is drilled in the center of both conduits for a lock to be applied. This prevents the inner conduit from being removed. Therefore, in the end, you have a bar mounted across the panel that is unable to be removed with the key to the lock.

A piece of ¾" conduit is cut and consists of two holes drilled on the ends. The screws for the panel cover are backed out then reapplied through the conduit bar, attaching it to the front of the panel.

Finished product!

Iowa-Illinois Safety Council
Hazard Control Recognition Program

Fiberteq, LLC
Danville, IL

Iowa-Illinois Safety Council
Hazard Control Recognition Program

- Personnel Accountability System
  - Process basement is a remote work area
  - To notify all personnel in main level work area that the basement is occupied the Site Safety Team had blue lights installed and implemented accountability process.
  - When ever a person goes to basement they turn on light switch in cabinet and put tag on outside of cabinet. When they come out they reverse the process. Any persons walking by the cabinet or are in view of the lights can always tell if the basement is occupied. This is important for accountability and also to assure no persons are in basement prior to performing wash down activities.


Iowa-Illinois Safety Council
Hazard Control Recognition Program

- Fanroom Roof Access
  - Fanroom roof has to be accessed to adjust fan dampers
  - Dampers were added to process fan discharge piping. Dampers had to be accessed to adjust flow.
  - Safety Team replaced temporary extension ladder with permanent OSHA ladder to make access safer. Permanent fall protection system was also installed when accessing this area.


Iowa-Illinois Safety Council
Hazard Control Recognition Program

- HI-Vis in High Traffic Areas
- Implemented Hi-Vis Clothing Policy in High Traffic Areas
- Implemented policy for use of hi-vis clothing for all personnel working in high forklift traffic areas and docks
- This even involved development of a new hi-vis denim work shirt not previously available from our uniform provider. This created a whole new product offering they did not previously have available to their customers.

Iowa-Illinois Safety Council
Hazard Control Recognition Program

- Guarding for off-line wrapping System
  - Off-line wrapping system came in with no guarding
  - Designed and installed guarding system that enclosed wrapping system.
  - Provided floor mat switches that require operator to be on mat to operate wrapping system.
  - Interlocked gates so that wrapper cannot be used if gates are open.
  - Forktruck holds roll in place and covers front opening when wrapper is in operation.


Kemin Industries

Des Moines, IA 50317

Encapsulation Room HVAC Installation Project

The Encapsulation process created condensation that made floor conditions very slippery, causing slip and fall hazards for the operators.

To address the condensation issue, an enhanced HVAC unit was installed on the second floor to eliminate condensation in the work area . This improved and floor conditions, creating a safer work environment for the operators.

Hopper Project

Sometimes wear and tear would create sharp edges on the exterior of the hopper, posing a laceration hazard. Scraping out the hopper is a routine part of the process.

To address the laceration hazard, sharp edges were buffed out and foam was installed to protect employees during maintenance activities. (Pictured on Left). Employees also wear long cuffed gloves during the process for added protection.

Lab Office Space Glass Visibility Project

Offices and labs are separated by glass doors and partitions, creating potential for employees to walk into glass.

To address the line of fire hazard, pictures of molecules were embedded into the partition glass to make the glass more visible for employees working in both the lab and office spaces.

John Deere Dubuque Works IISC Hazard Control Award Submission

February 2014

JOHN DEERE

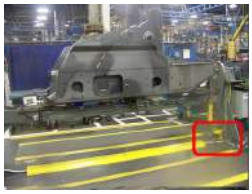
Fork Truck Safety Buzzers

Project was initiated from a fork truck accident in a production area. The cause of the accident was from a fork truck pulling a trailer without the trailer being correctly attached. An electrical system was designed in-house that would trigger an alarm that warns the operator if their forklift trailer was not properly attached. The result of the project gave the operator an effective failsafe check to make sure the fork truck trailer was properly attached. There have been no fork truck trailer accidents since.

JOHN DEERE

Spinout Fixture

The spinout fixture has 4 manual clamps that hold the frame which can rotate without being clamped resulting in multiple near misses. The Rear Post can also contact the floor when rotated which can cause damage to tooling and the frames. There are also blind spots preventing visibility when rotating. The spinout fixture now has hydraulic clamps which prevent the fixture from rotating without being clamped. A laser sensor was also installed to keep the fixture from rotating if the field is broken.



JOHN DEERE

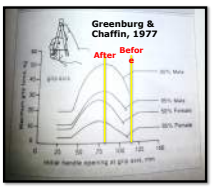
A shorter operator was having trouble pushing and pulling the hoist with a part loaded on it. The process involves holding onto the part at 48" in order to clear certain obstacles. This resulted in the operator having her hands at or above shoulder height while pushing or pulling the hoist and part around. In order suit all the operators needs; a add-on device was created that lowered the contact point to 36" for the shorter operators.

JOHN DEERE

Plasma operators often have to knock a part out of the skeleton in the middle of the plasma bed. The operator was leaning over the bed on hot parts to reach the middle parts. The original hammer gave the operator a 30" reach and the newly modified hammer provides 52" of reach. The average distance to the middle of a sheet is 48".

JOHN DEERE

Operator was having a hard time opening their hand wide enough and then having enough strength to force open the snap rings enough to install them. A pliers was modified to invert the handle to reduce the need to open your hand fully. This in turn allows more power to be derived from a more closed grip. Optimal grip strength occurs at 75 mm and is reduced dramatically as the hand opens up further.



Before:
95% Male – 20 kg Max Grip Force
95% Female - 4 kg Max Grip Force

After:
95% Male – 27 kg Max Grip Force
95% Female - 9 kg Max Grip Force

JOHN DEERE

Hazard Control Recognition Program Application

PCS Phosphate Company, Inc.
Marseilles Feed Products Operation
Marseilles, IL

PotashCorp.com

Acid Line Reconfiguration

Operators around these Acid feed lines. Frequent change-outs of the clogged lines exposed the operators to contact and linebreak hazards as well as maintenance downtime. After reengineering the delivery system with a welded piping system, linebreaks and exposures have been reduced greatly.

Before - Flexible Hoses had to be changed often.

After – Hard pipe solution reduces frequent linebreak exposures.

PotashCorp

Phosphoric Acid TransLoading

Operators transload Acid utilizing a small platform with limited fall protection and weather exposure.

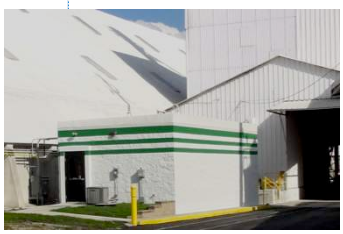
Additionally, the transfer relied on 30lbs of pad air to pressurize the car, exposing the operators to leaks and failures at worn connection points.

A much larger, sturdier, and weather protected transloading station reduces the operator's exposure to falls, hose "wrangling" and all year weather elements.

A fixed pipe and diaphragm pump nearly eliminate exposure to system components being under pressure.

Tornado Shelter

After responding to Joplin, MO and Harrisburg, IL as Emergency Responders, it became apparent that our underground tornado shelter needed an upgrade and better accessibility for all employees. We were able to build a break room, with restrooms that doubles as a tornado shelter.



Valve Actuators

Operators had to actuate large plug valves. The effort needed to open or close the valves often exposed them to muscle strains and other injuries. By replacing the handle in favor of gear-reduction actuators, the operators are no longer exposed to strains and sprains; additionally, we were able to position the wheels at such an angle as to promote good body mechanics.

PotashCorp

Thank you

There's more online:

PotashCorp.com
Visit us online

Facebook.com/PotashCorp
Find us on Facebook

Twitter.com/PotashCorp
Follow us on Twitter

Neal Energy Center
Sergeant Bluff, Iowa

Neal Energy Center

BEFORE

FOR YEARS THE CONTRACTORS HAD TO REMEMBER TO WRITE THE EMERGENCY NUMBERS DOWN. AND THEN TRY TO REMEMBER THE NUMBERS DURING A REAL EMERGENCY

Front of Laminated Card

ACTIVATE ON-SITE EMERGENCY RESPONDERS
UTILIZE THE GAI-TRONICS SYSTEM:
- SELECT LINE – 5 ON THE GAI-TRONICS
- PICK UP THE HAND SET & PRESS THE TRANSMIT BUTTON
- SPEAK LOUD & CLEAR

"THIS IS AN EMERGENCY",
"CONTROL ROOM LINE – 5, DO YOU COPY?
"CONTROL ROOM LINE – 5, DO YOU COPY?
- RELEASE THE TRANSMIT BUTTON TO RECEIVE RESPONSE
- IDENTIFY YOURSELF
- WHAT IS THE EMERGENCY
- LOCATION OF EMERGENCY
- STAY ON THE PHONE UNTIL ALL INFORMATION IS RELAYED

(IF NO RESPONSE SEE REVERSE SIDE FOR INSTRUCTIONS)

Back of Laminated Card

EMERGENCY ACTION PHONE NUMBERS
IF POSSIBLE USE THE GAI-TRONICS SYSTEM:
REPORTING EMERGENCIES BY PHONE

Neal North, 1151 260th, St.	
Shift Supervisor:	712 - 277 - 6303
Administrative Assistant:	712 - 277 - 6311
Neal South 2761 Port Neal Circle	
Shift Supervisor:	712 - 277 - 5218
Administrative Assistant:	712 - 277 - 5229
Safety Supervisor:	712 - 577 - 2200
Security Neal North:	712 - 277 - 6305
Security Neal South:	712 - 277 - 5271
Emergency Operator:	Cell: 9-1-1
Emergency Operator:	Land line: 9-9-1-1

AFTER

NOW WE PROVIDE TO EVERY CONTRACTOR EMPLOYEE A LAMINATED EMERGENCY CARD. EMERGENCY NUMBERS AND INSTRUCTIONS AT THEIR FINGER TIPS

Neal Energy Center

DURING CONSTRUCTION IT WAS RECOGNIZED THAT THE TRAFFIC INTO THE PLANT WAS AN ISSUE FOR PEDESTRIANS AND DELIVERY DRIVERS. SO IT WAS DECIDE THAT MORE SIGNAGE WOULD BE INSTALLED TO ALERT DRIVERS TO THE PEDESTRIANS IN THE AREA. THIS HAS HELPED WITH THE TRAFFIC INTO THE PLANT.




Neal Energy Center

NEAL ENERGY CENTER UPGRADED THE FIRST RESPONDER JUMP KITS AND THE BURN KITS AT BOTH FACILITIES.

THE LOCATIONS OF THE KITS ARE CENTRALLY LOCATED ALONG WITH THE AUTOMATED EXTERNAL DEFIBRILLATOR (AED) IN THE NURSES STATION AS WELL AS IN THE CENTRAL CONTROL ROOMS FOR BOTH PLANTS.

WHEN EMPLOYEES ARE ASSISTING AT THE EITHER SITE, THEY WILL KNOW THE EXACT LOCATIONS OF THE EMERGENCY KITS & AUTOMATED EXTERNAL DEFIBRILLATOR (AED) LOCATIONS.

John Deere Des Moines Works

Ankeny, Iowa

Pedestrian/Vehicle Safety

In addition to purchasing a new fleet of trucks we purchased a speed sensor system that will allow us to set speeds not only for indoor/outdoor use but also allows us to be very specific to areas that require an even lower speed.

- Speed Sensors with both vehicle mount and wall mounts

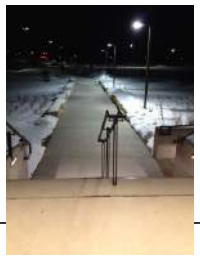
Blue lights were purchased for every new truck in our fleet (130) and installed to provide an extra visual for pedestrians in the work place. The light shines back 30 feet.

- New Fork Truck Fleet

Pedestrian Safety

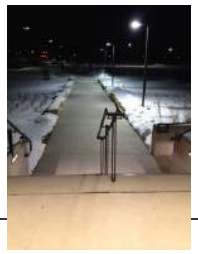
In a attempt to reduce the number of slip and falls experienced during the winter months, as part of the AFE for upgrading security, heated sidewalks were also put in the front main entrance.

- Main Entrance Heated Sidewalks



This also reduces the need to run powered snow removal equipment in a highly populated pedestrian area.

- Main Entrance Heated Sidewalks



I am expecting to receive one more slide from Deere Des Moines Works before we convene on Friday.

Landfill North Iowa

Clear Lake, Iowa

ELECTRONICS RECYCLING PROGRAM
Landfill of North Iowa
Clear Lake Iowa

Lifting heavy and awkward televisions and monitors to stack onto pallets

Installed a Jib Crane with electronic hoist and nylon straps to lift heavy and awkward televisions and monitors to stack on pallets.

Reduced bending, lifting, and straining to maneuver units from floor to top of stack.

LNI had sent in this slide just before the deadline and did not realize three slides were required. He was going to get me the two additional slides and I hope to have them before Friday's meeting.