

Please Silence Your Cell Phones Mute Your Microphone on Teams





March Contractor Safety Meeting

March 12th, 2024





Agenda



- Safety Share
 - Morenci Standdown
- Environmental Share
- MSHA Update Dust & Silica Exposure
- Safety Stats
- Guest Presentation: Rory Wilson with AMES Construction
 - Mental Health Awareness
- Routine vs. Non- Routine Work Discussion
- PFE's and Agency Shares (Time Permitting)

Safety Share- Morenci Serious Events





2/6/24



3/2/24



3/6/24

FREEPORT FOREMOST IN COPPER

Morenci Environmental Services

Environmental Share Bird Nesting & Wildlife Guidance



As the weather warms, many of the desert insects, reptiles and mammals emerge from their winter life. Please be watchful during your area inspections for any new bird nests or wildlife activities.

Bird Nesting Guidance

- <u>ACTIVE</u> Bird nests with eggs or babies are protected under Federal Law cannot be removed or disturbed without the proper Federal approval no matter where the nests are located. The permit can take over a month to receive.
- <u>EMPTY</u> nests may be removed before any eggs or babies are present to discourage nesting.



• Workplace inspections and immediate removal of EMPTY nests are important to prevent lost working time due to nests.



Wildlife Guidance

- Be cautious and check your work areas for wildlife such as snakes, insects, mammals, etc.
- If you encounter <u>DECEASED</u> wildlife in the Mine, Processing areas, and Townsite, please contact Environmental Services for guidance on the proper disposal methods. Once approved, Environmental Services does not need to be present for disposal of wildlife.
- For <u>LIVE</u> wildlife, do not interact, maintain a safe distance, and contact security or the environmental office with the animal's location.
- Wildlife does <u>NOT</u> include household pets , please contact Animal Control.

Note: Pigeons are not a protected species and may be discarded if found on property.

Dust and Silica Exposure (MSHA)

Summary

- Two groups received citations (Morenci Mill & Driller's)
- B-order issued to Morenci Mill
- Both cases required a rapid and intense response ۲
- MSHA rule change likely, reduces exposure limit in half
- Health risk has been effectively managed (1 confirmed silica case in the 90's)

What has changed

- MSHA has taken a more aggressive approach to silica exposure
 - Political in nature, coming from high levels in MSHA _ leadership
- Likely will sample every visit
- 1 sample enforcement is a reality
- Using B orders as an enforcement mechanism (historically rare)







Path Forward

Current work

- Ongoing projects to repair and improve dust collection
- Engagement with maintenance teams to improve maintenance practices (reduce spillage, repair sprays, Repair cabs, etc..)
- Ongoing discussions FMI legal team to address heavy handed & single sample enforcement

Proposed Changes (Site Wide)

- Adopt Morenci Mill clean-up SOP
 - Vac trucks where possible _
 - Wet methods where not possible _
 - No dry shoveling or sweeping



Mill Floor-9/27/2023-Before Dust Collector Work



12mo Rolling TRIR & Feb 2024 Stats



Feb 2024

- 2.26 TRIR
- 11 Reportables
 - 5 w/ Contractors
- 4 High-Risk Incidents
 - 1 Actionable (Feedbox PFE)
 - 2 w/ Contractors

- PE 152 Days No Reportables
- Town 90 Days no Reportables





Mental Health Awareness

Guest Speaker: Rory Wilson – AMES





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MENTAL HEALTH IN CONSTRUCTION

Safety





You are 5 times more likely to lose a coworker to suicide than to a work related illness or injury!





Top 10 Industries at Risk for Suicide for Men



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Ames Construction

Mental Health in Construction and Mining

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According to the CDC:

- 54.2 mine workers and 53.3 construction workers out of every 100,000 workers die by suicide.
- In stark contrast, the average suicide rate in the United States is just 12.93 individuals per 100,000 people.
- The suicide rate amongst these workers is 4+ times the national average.







Studies show that one reason may lie in the composition of our workforce, these industries a male dominated.

- 9 out of every 10 construction workers are men.
- Men die from suicide 3.5 times more than women
- 6.5 of every 10 construction workers are white
- Suicide rates are highest amongst middle aged men White men in particular
- 1.5 of every 10 construction workers are veterans
- Veterans are 50% more likely to die by suicide than the general population



Why is this happening?

POWERED BY

Culture

- •Tough in nature •Away from family and support structures
- Addiction
- Peer Pressure

- Work-Life Balance
 - Stress
 - Long hours
 - Travel
 - Relationships
 - Sleep disruptions
 - Instability





TALK – IF A PERSON TALKS ABOUT....

- Killing themselves
- Feeling hopeless
- Having no reason to live
- Being a burden to others
- Feeling trapped
- Unbearable pain

Art of listening is creating an environment in which the other person feels heard, feels seen and feels understood. - by Simon Sinek



What to LOOK for!

Behavior – Especially after painful event or a loss!

- Increased use of alcohol or drugs
- Withdrawing from activities
- Isolating from friends and family
- Sleeping to much or to little
- Visiting or calling people to say goodbye
- Giving away possessions
- Aggression
- Faitgue





What Can we Do?

- 1. Understand our environment
- 2. Understand the issues
- 3. Understand our resources









GET INVOLVED!



About National Suicide Prevention Month

September is National Suicide Prevention Month. All month, mental health advocates, prevention organizations, survivors, allies, and community members unite to promote suicide prevention awareness.

National Suicide Prevention Week is the Monday through Sunday surrounding World Suicide Prevention Day. It's a time to share resources and stories, as well as promote suicide prevention awareness.

World Suicide Prevention Day is September 10. It's a time to remember those affected by suicide, to raise awareness, and to focus efforts on directing treatment to those who need it most.







https://988lifeline.org/promote-national-suicide-prevention-month/



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What Role Do We Play?

The most important role of a construction professional is to de-stigmatize mental health, and serve as the bridge that connects the workers needing support with qualified medical professionals.

2024 MANAGEMENT MEETING

THANK YOU!





Ames Construction





Routine vs Non-Routine Work

Pre-Job Planning

In a world full of OSHA violations #tiktok - YouTube





Routine vs Non Routine- discussion





https://youtu.be/go4IZqUJ 1gE?si=FfCumdAWbPTd5 OEe

Contractor Name	Job Risk Assessment	Date:	Shift:			
dentify & evaluate job risks, exposure, hazards & potential energy, then mitigate them through the hierarchy of contro						
Complete this form at the job site with all involved employees. If conditions change, STOP work & review with all involved.						
Equipment #:	Work Area:					
Job Description:						
WO #:						
Routine Non-Routine Is the	re an SOP for the job? Yes No Was t	he SOP reviewed?	/es No			



Routine vs Non Routine





Routine vs. Non-Routine Work Matrix v.2024.1

FREQUENCY	CREW EXPERIENCE				
FREQUENCT	5 or more	3-4 Times	2 Times	1 Time	None
OCCURS 2+ YEARS	NON- ROUTINE	NON- ROUTINE	NON- ROUTINE	NON- ROUTINE	NON- ROUTINE
OCCURS 1 – 2 YEARS	ROUTINE	NON- ROUTINE	NON- ROUTINE	NON- ROUTINE	NON- ROUTINE
OCCURS 6-12 MONTHS	ROUTINE	ROUTINE	NON- ROUTINE	NON- ROUTINE	NON- ROUTINE
OCCURS 1-6 MONTHS	ROUTINE	ROUTINE	ROUTINE	NON- ROUTINE	NON- ROUTINE

***CONSIDERATIONS WHEN CLASSIFYING

- Median level of experience of crew performing job-
- Supervisor experience = higher influence
- High risk work can influence <u>classification</u>
- Reassess when multiple fatal risks are present
- Same or substantially similar tasks can factor into experience
- Reevaluate when different equipment is used for the <u>task</u>

Routine vs Non Routine- Considerations



- ROUTINE
 - Standing risk assessment associated with SOP/Work Instructions
 - Formal FRM risk assessment available for developing field risk assessments
- NON-ROUTINE
 - Requires FRM Risk Assessment in planning phases and JRAs throughout execution
 - Involve FMI supervision & Contractor leadership
 - Amend Health, Safety, Environmental Plan (HSEP) as necessary
- What will this look like in field? What paperwork will be required?
 - Non routine work- a risk assessment is done with FMI
 - Routine work currently 80% of service contracts.
- Typically- Non Routine work does not require collaborative FMI/Contractor risk assessments.
- WIRC offered to develop formal Risk assessments for routine work that can be field referenced/ archived/ attached to required field documentation.



PFE Events

February 2024





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Actionable Event:

Feed Box Rollover Onto Contract Worker



Preliminary Incident Details Operation Morenci February 6, 2024 / 12pm Date / Time Type Injury A contractor was installing liners on a wet screen feed box that had been placed on the ground for maintenance. As the liners were added, the two-ton box rolled over onto the worker, who was Summary trapped underneath. After unsuccessful attempts to move the box by hand, a forklift was used to free the worker. **Fatal Risk** Uncontrolled Release of Energy **Risk Category** Actionable **Risk Rating** Significant (3) Likely (3) Blocking for maintenance work and energy isolation Inadequate risk assessment • Pipe stands were BO and not intended for this use Findings / Missing Controls Pipe stands were used instead of cribbing or engineered cradle • • Placement of the stand cradle was not secure to the feed box · Ground was not level/potentially soft Applicable Policies / **Control of Hazardous Energy** Procedures **Employee Condition** Minor injuries resulting in restricted duty Chris Seick, Metcalf Mill Manager Contact Jacob Sweet, Health and Safety Manager



Position of employee, placement of pipe stands and direction the feed box tipped.

PFE LESSONS LEARNED: Feedbox Rollover Onto Contractor





Causal Factors

• Contractor used pipe stand to support weight of feedbox.

Incident Overview

Morenci, February 6, 2024

A contractor was installing liners on a wet screen feed box that had been placed on the ground for maintenance. As the liners were added, the two-ton box rolled over onto the worker, who was trapped underneath. After unsuccessful attempts to move the box by hand, a forklift was used to free the worker.

Uncontrolled

Release of Energy



Site Specific Actions

- Engineering control Engineer a stand to secure feedboxes when liners are being changed outside of wet screen. Immediately eliminate the practice of changing liners outside of wet screen until new stand is fabricated.
 - Administrative control Create SOP for task that includes the following safety guidelines:
 - Only use engineered stand
 - Use cement slab in yard for level, stable ground
 - Ensure stand placement adequately and evenly supports feedbox weight

We Champion a Work Environment Where Everyone Goes Home Safely





Uncontrolled **Release of Energy**

Incident Overview

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- **Contractors**
 - Set clear safety expectations for work execution with employees.
 - Commit to a having clear safety plan and monitoring system to help ensure safety controls for routine work are clearly identified and additional rigor is in place for non-routine work.
 - Audit the system to correct gaps and reinforce the process.



- Incorporate contractors into your planning process.
- Review and audit work identified through planning.
- Ensure contractor's safety plan meets current safety expectations.
- Drive ownership with your team we are responsible for contractors working in our areas.
- Frontline Supervisors, Sr. Supervisors, Superintendents, Managers: When walking department and work areas, evaluate tasks where cribbing is used to help ensure the equipment is adequate.



All of Us

- Evaluate all equipment and tasks requiring cribbing for potential crushing hazards, not just those • associated with liners or feedboxes. Verify appropriate cribbing is used for each task.
- Support the planning and safety processes intended to help us execute safe work.
- Audit and reinforce often a clear safety plan and monitoring system to help ensure consistency and sustainability.

Turning **Our Commitment** into Action



26-ton Boom Truck Tipped Over





	Preliminary Incident Details
Operation	Safford
Date / Time	February 15, 2024 / 11:55 a.m.
Event Type	First Aid
Summary	Two mechanics and an apprentice were using a 26-ton boom truck to offload a bangboard (feed plate distributor) at the C4 laydown. As the load swung to the driver's side, the truck tipped over. The mechanic operating the boom and another mechanic standing on the bed of the truck jumped out of the way to avoid being in the line of fire. The apprentice was standing on the ground and out of the line of fire.
Risk Category	Actionable – Significant (3) Likely (3)
Findings / Missing Controls	 Only the rear stabilizers had been deployed No footpads were placed under the rear stabilizers The main outriggers were not used
Applicable Policies / Procedures	 <u>Lifting Operations</u> Mobile Crane/Boom Truck Training
Employee Condition	The mechanic who jumped from the bed of the truck experienced first-aid level injuries to the ankle, wrist and neck (strains/sprains).
Contact	Drew Borcherding, Manager-Health and Safety; Richard Sanchez, Manager Crush/Convey



The boom truck tipped onto the driver's side when the load swung.



Falling Grating



	Preliminary Incident Details	
Operation	Manyar Smelter Project	
Date / Time	February 22, 2024 / 8:42 PM	
Event Type	Injury- Restricted Duty	
Summary	While moving steel, a crane's cable contacted a piece of scaffold grating weighing 20 kilograms. The grating fell 10 meters and struck one of two employees performing structural steel work from a man basket at a height of 15 meters.	
Risk Category	Falling Objects – Significant (3) Possible (2)	
Findings / Missing Controls	 Failure to identify unsecured grating during installation and inspection Falling objects were identified as a fatal risk on completed FRM verification but did not distinguish grating as potential risk Failure to prevent crane cable contact with structure 	
Applicable Policies / Procedures	 Chiyoda Grating Installation Method Statement Chiyoda Permit to Work Procedure 	
Employee Condition	Employee sustained a sprained shoulder.	
Contact	Zach Scrivner, Manager-Corporate Project Engineering Safety Chris McCoy, Project Director	



Photos / Links

Scaffold grating weighing 20 kilograms fell 10 meters, striking an employee in a man basket.



Agency Shares

February 2024





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MSHA Safety Alert – Operating Equipment Near Water



- Conduct workplace examinations and eliminate hazardous conditions.
- Keep mobile equipment a safe distance from the water's edge.
- Ensure miners wear a seatbelt when operating mobile equipment.





Personal Flotation Device (PFD)

Emergency underwater breathing devices are commercially available, and they come in all different shapes and sizes. If made available and miners are properly trained, these devices can potentially increase miners' chances of survival if they fall into water.

- Provide emergency underwater breathing devices to miners with risk of falling into water.
- Train miners in the use of underwater breathing devices in case of an emergency.
- Keep water rescue equipment easily accessible.
- To assist miners in exiting a submerged cab, develop an underwater emergency egress kit which may include a nose clip, mask, underwater breathing device, PFD, and glass breaking device.
- Provide and ensure miners wear a Coast Guard approved Type I or Type V personal flotation device (PFD).





MSHA Safety Alert – Rotating Conveyor Rollers



Three miners have been permanently disabled since the beginning of 2024

Serious and fatal injuries occur when miners clean or adjust conveyor rollers, pulleys and idlers while the belt is in motion. Injuries vary from broken bones to loss of fingers, hands, and arms. Some accidents have resulted in fatal injuries. Injuries result from unsafe actions like:

- Using aerial lifts to access elevated bend, snub, and take-up pulleys, or removing or reaching around guards to work on moving conveyor components.
- Using scrapers, shovels, pry bars, hammers and torches to remove ice, mud or buildup. The tools can be caught in pinch points between the conveyor belt and rollers and pull in the tools and miners' hands, arms, and bodies.



A miner suffered fatal injuries in 2018 when he was entangled in a conveyor's take-up assembly. He was working from an elevated aerial lift cleaning buildup from a bend pulley while it was operating.



This photo shows buildup on a bend pulley. In 2024 a miner lost a thumb when he removed a guard and began to clean a rotating bend pulley with a 15-inch-long pry bar.

Best Practices

- Keep guards in place. Do not defeat or circumvent any protective system.
- Have an effective lock-out program. Shut down, deenergize and lock out power switches and block conveyor parts against hazardous motion prior to performing belt roller or pulley cleaning, belt tracking or other maintenance.
- Establish policies and procedures to ensure proper and safe cleaning and maintenance of conveyor components.
- **Provide task and site-specific hazard training** that prohibits cleaning or working on or around moving conveyor components.
- Follow safe cleaning and maintenance policies and procedures. Supervisors, miners, and contractors are all responsible for working safely.



MSHA Safety Alert – Truck Dumping Safety

On January 2, 2024, the driver of an over the road tractor-trailer haul truck died when the trailer tipped over onto the cab of the tractor. The driver was dumping part of the load of gravel from the trailer. Between 2018 and 2024, mine operators reported 14 injury accidents where over the road trucks tipped or rolled over while dumping. During the same period, miners were also injured when 28 off-road mine haul trucks tipped or rolled over. The accidents can be prevented with proper training and following best practices:



r onto cab

Photograph: Trailer tipped over onto cab of tractor.

A slight slope can increase the likelihood of tipping if material sticks in the top of the box.

BEST PRACTICES

For drivers:

- Dump only on level surfaces, free of spillage. Make sure elevated dump sites are substantial and equipped with adequate dump point restraints.
- Keep your truck and trailer in a straight line when backing up and never move faster than walking speed.
- Avoid dumping in high or gusty wind conditions.
- Stay in the cab with your seatbelt on during the dumping process. Never attempt to exit or jump from an overturning truck.
- After dumping, remove any compacted material before reloading the truck.
- Evenly distribute the load and use antifreeze in cold weather to prevent material from freezing and sticking in the truck bed.
- Never overload trucks or trailers.





OSHA Share – Trenching & Excavation

OSHA is focusing on reducing trenching and excavation hazards. Trench collapses, or cave-ins, pose the greatest risk to workers' lives. To prevent cave-ins:

- SLOPE or bench trench walls
- SHORE trench walls with supports, or
- SHIELD trench walls with trench boxes

Employers should also ensure there is a safe way to enter and exit

the trench. Keep materials away from the edge of the trench. Look for standing water or atmospheric hazards. Never enter a trench unless it has been properly inspected.

29 CFR 1926.650, 29 CFR 1926.651, and 29 CFR 1926.652 are applicable OSHA standards.

SLOPE IT





THE POWER OF

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ASMI – Pinch Point Safety Awareness





A *pinch point* is where two objects come together and a body part, most commonly the fingers and hands, can get caught. While pinch point hazards most often involve the fingers and hands, they can also affect other parts of the body. *Pinch points* are common workplace hazards that can lead to serious injury, amputations, and even death on the job site.

Pinch point injuries most commonly involve the fingers and hands. Minor types of *pinch point* injuries include cuts, bruises, blisters, and contusions. More serious types of *pinch point* injuries include amputations, lacerations, broken bones, and even death.

A pinch point injury can happen when:

- Reaching into machinery or equipment with moving parts
- Walking or working in areas with mobile equipment
- Not paying attention to the location of hands or feet
- Equipment or safety guards are in poor condition
- Clothing, jewelry, or hair gets caught or tangled

It's extremely important for everyone to take personal responsibility and be able to recognize pinch point hazards in order to prevent injuries. To help keep workers safe from *pinch point* injuries, be sure to carefully inspect all machinery and equipment to identify potential *pinch point* hazards.

Tips to avoid pinch point hazards

- Never place your hands where you can't see them
- Pay close attention around moving parts
- Never walk away from machines that are turned on or in motion
- Securely block equipment or parts where stored energy can be released
- Check machine and tool safety guards
- Follow Lock Out/Tag Out Procedures
- Wear proper PPE

ASMI – Mechanisms & Hydraulics

BEST PRACTICE OF THE <u>MONTH</u>

Mechanisms and Hydraulics

Goodfellow Corporation

Blake Goodfellow





- Due to size constraints imposed by portability, the feed chute (which acts to add moisture to the material prior to screening) must be folded down or removed prior to transport.
- In both of the referenced fatalities, the Miners were involved in the operation of folding the feed chute (for transport or maintenance) when they were crushed between the chute and the handrail at the feed end of the screen.
- From photos provided in the MSHA fatality alerts, it can be seen that both chutes were equipped with hydraulic folding mechanisms, although it is unclear whether these were OEM designs or installed later.

Best Practice:

- MSHA Reports detail four best practices to prevent such injuries
 - Block machinery components against motion before beginning maintenance or repairs and verify miners are in a safe location before moving equipment and components.
 - o Examine work areas during the shift for hazards that could be created while performing the work.
 - When conducting a non-routine task, review safe procedures before starting work and ensure all safety components are in place.
 - o Do not work under suspended loads.
- Additional best practices can also be gleaned from these and similar situations
 - o Hydraulic systems should never be utilized for blocking machinery components against movement.
 - When removing bolted connections, consider the forces traveling through the bolt and the consequent reaction once the bolt is removed. Consider gravity, thermal, spring, and other loading factors.
 - Bolts loaded in shear are less prone to careless removal while under load compared to bolts loaded in tension, and equipment manufacturers should consider this in equipment design.
 - Task-training for hydraulic systems should be standard, similar to other lifting equipment (cranes, telehandlers, etc.),
 - and the use of traditional lifting equipment should be considered if operators are better trained with that equipment.





Incident Reporting Work Order Field



Contractor Company			Contractor Supervisor	
Name			Name/Badge Number	
FMI Safety Contacted			Contractor Supervisor Phone	
FMI Organization			FMI Department	
Location of Incident			·	
Description of Incident				
Work Order #				
Immediate Actions				
Potential Risk Rating	Potential Consequen	ce	Potential Fre	equency
Explanation of Risk		<u>_</u>		
Ranking				



Thank You!

