FREEPORT-McMoRan

September Contractor Safety Meeting

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Safety Supervisors

November 12, 2019

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Meeting Agenda

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- **Safety Share**
- **Emergency Exits/Meeting Point**
- **Cell Phones**
- **Facilities**
- **This months focus**
  - **Special Presentation – Keats Jack from LVI Environmental Services Inc. (Northstar)**
  - **Branch Performance**
  - **Environmental Share**
  - **Hazardous Substance Management**
  - **Motorcycle Safety**
  - **Weekly Safety Audit Submissions**
  - **Recent Major Events**
  - **New Crane Policy in the works**
  - **On-boarding**
  - **Fatal Risk Patterns and Focuses**
  - **Contractor Monthly TRIR Report – Reminder**

Welcome Keats Jack

Northstar

Environmental Share
PCB Management

November 2019

- **Polychlorinated Biphenyls (PCBs) are regulated under the Toxic Substance Control Act**
- **PCBs can cause harmful environmental and health effects**
- **PCB containers need to be properly labeled and stored**
  - **PCB containers are located at electrical shops and the Environmental Yard**
- **Oil-filled electrical equipment that may contain PCBs (BMP 309)**
  - **Transformers**
  - **Rectifiers**
  - **Capacitors**
  - **Light Ballasts**

A typical pre-1979 PCB-containing fluorescent light ballast (FLB)

A typical Non-PCB containing fluorescent light ballast. The ballast has a "No PCBs" marking on the top of the ballast and the text "electronic ballast". Only magnetic fluorescent light ballasts contained PCBs.

Questions? Or need more information call:
Environmental Services
(928) 865-6000

5.1 Hazardous Substance Management

- **All hazardous substances, including chemicals require prior approval from the Health and Safety Department and environmental department before being brought to the project.**

- **The Contractor shall provide a list of all hazardous substances proposed for use for the services being performed along with the corresponding safety data sheet (SDS), the anticipated quantity, and the use and storage location. This shall be made available to FCX for approval purposes.**

5.1 Hazardous Substance Management

- **The list and respective SDS shall be updated on an ongoing basis -- substances previously not included in the initial submittal are subject to project approval and must undergo review before being brought onto the FCX property.**

- **Care shall be taken to select and use materials which can successfully accomplish the required work with minimal health or environmental impact.**

5.1 Hazardous Substance Management

- **All hazardous substances must be removed from the project within three days of completion of the work involving the substances, or within three days of completion of the contract, whichever occurs first.**

- **Contractors must maintain the most current SDS provided by manufacturers and distributors.**

- **Contractors must have an established Hazard Communication Program that meets all national, regional and local requirements.**

Motorcycle Safety

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You know who you are…..

Some Facts About Motorcycle Accidents

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- **4,985 motorcyclists were killed in 2018**
- **28% were drunk.**
- **AZ makes # 5 on states with most motorcycle fatalities per registration.**
- **Of all drunk induced fatal vehicle crashes, motorcyclists consisted the majority, followed by passenger cares, light trucks, and large trucks.**

How to Stay Safe on a Motorcycle

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- **Before every ride, be sure to check tire pressure, tread path, brakes, lights, and fluid levels.**
- **The best hope you have in an event of a crash is wearing a helmet.**
- **Arms and legs should be completely covered.**
- **Wear gloves that give you the best grip, boots that cover your ankles, and brightly colored/reflective clothing.**
- **Ride sober**
- **Avoid riding in adverse weather conditions**

Groups Submitting Weekly Audits

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Carrier	9/20/2019 7:30 AM	File folder
Core Construction	10/1/2019 11:49 AM	File folder
General Tool	9/20/2019 1:40 PM	File folder
Granite	5/16/2019 3:38 PM	File folder
Jays	10/2/2019 7:12 AM	File folder
Motion Industries	7/2/2019 11:49 AM	File folder
Sollers	9/18/2019 7:09 AM	File folder
WIRC	7/9/2019 11:34 AM	File folder

Potential Fatal Event

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Western Copper Slope Failure

Potential Fatal Event Notification for a First Aid event that occurred at Morenci when a sudden slope failure engulfed a dozer that was cleaning a bench in Western Copper. The operator was able to be extracted from the equipment in under 20 minutes and received some minor scratches during that process. Controls on the equipment contributed directly to a reduction in the severity of injuries in the event.

Jump Starter Pack Explosions SA-2019 - 13

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- **Summary:** The following Safety Alert provides information about ongoing investigations into two separate incidents where the same make and model jump starter pack exploded.
- **Description:** The company currently is conducting investigations into the following incidents at Morenci and Henderson operations involving jump starter packs that exploded, injuring employees.

Jump Starter Pack Explosions SA-2019 - 13

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- **Morenci:** Two employees were attempting to jump-start a water truck in the asset recycling yard. They hooked up a Jump-N-Carry 12/24 volt jump starter pack – set at 24 volts – to the engine battery, but the truck did not start. The employees proceeded to hook up a second jump starter – set at 12 volts – and the engine turned over, but did not start. They then realized the voltage selection for the second starter was incorrect, so one employee disconnected the grounding cable and switched to 24 volts. Upon reconnecting the grounding cable, the second jump starter exploded resulting in injuries to the employee's right forearm and abdominal burns.

- An initial investigation revealed the cross voltage generated flammable gases within the plastic casing of the jump starter that ignited when the grounding cable was reconnected. The jump starter also did not have a warning system to alert of improper voltage selection.

Jump Starter Pack Explosions SA-2019 - 13

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- **Henderson**: A shop mechanic was repairing a rear-axle lift emergency stop control button that had come loose in the cab of a concrete transport truck. Once finished, the mechanic attempted to start the machine. It would not start so the mechanic assumed the battery charge was too low having been on for an extended period during repairs. The mechanic obtained a jump starter pack, connected the positive and ground leads, and began to plug the voltage selection cord into the 24-volt port on the jump starter when it exploded. The employee sustained injuries to the left hand and abdomen

Jump Starter Pack Explosions SA-2019 - 13

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- **Additional Equipment Information**
- Material stock number: 40118783 (jump starter pack was same make/model at both sites)
- Clore Automotive Safety Manual:

- https://cloreautomotive.com/wp-content/uploads/2018/08/JNC1224-Safety-Presentation.pdf
- Clore Automotive Operator's Manual:

- https://cloreautomotive.com/wp-content/uploads/2018/08/842-366-224.pdf

Jump Starter Pack Explosions SA-2019 - 13

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Highlighted Incidents

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Boom Contact with Power Line – SA-19-4

- **INCIDENT DESCRIPTION**
- **Summary: An arc flash occurred when the raised boom of an excavator came in contact with an overhead power line.**
- **Description: A contractor employee was doing excavation work at the townsite tailings pond – a location that required driving under overhead power lines. After working several hours, including under the power line, the employee switched to a larger excavator and drove under the power line with the boom raised. The boom made contact with the ground wire and pushed it up into a phase wire, causing an arc flash away from the excavator and tripping the breaker. No injuries or property damage occurred, and the excavator was not energized. Auto-reclosure on the breaker re-engergized the line soon after the excavator passed.**

Boom Contact with Power Line – SA-19-4

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- **FATAL RISKS HEALTH AND SAFETY POLICIES**
- **Exposure to Electrical Hazard**
- **N/A OTHER SIGNFICANT RISK (specific to site or task not categorized as global)**
- **N/A PROBABLE DIRECT CAUSES**
- **□ Failure to re-assess the job after equipment change**
- **□ Failure to lower boom and keep a safe clearance distance from the power line**
- **□ Absence of a spotter while operating heavy equipment under the overhead power line IMMEDIATE CORRECTIVE ACTION(S)**

Boom Contact with Power Line – SA-19-4

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Sierrita: Fork Lift Falls from Loading Dock

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- **Summary:** A forklift fell 4 feet to ground level when a semitrailer moved during loading.
- **Description:** A forklift operator was entering a covered semitrailer from the loading dock when the semitrailer unexpectedly pulled forward. This created a gap between the dock and the trailer, resulting in the forklift falling 4 feet down to the ground level. The operator was able to independently step off the forklift, and employees in the area came over to the verify the operator was visibly unharmed. The job was stopped and supervision and safety notified. The forklift operator was medically evaluated and released back to full duty.

PROBABLE DIRECT CAUSES

- Inadequate assessment of risks and needs
- Inadequate guarding and barriers
- Failure to understood directions
- Failure to use identified controls (Loading Dock Locking system) to mitigate risks
- Inadequate department SOP for unloading – does not include specifics for dock locking and semi driver procedures

IMMEDIATE CORRECTIVE ACTION(S)

- Stopped the job and notified supervision and safety
- Held a safety stand-down with entire department
- Shut down all incoming and outgoing shipments of moly concentrate until specific procedures were implemented
- Created a task specific SOP and ensured all employees are trained
- Advised transportation on updated procedures
- Re-established engineering controls (Loading Dock Locking System)

REQUIRED ACTION(S)

- Create safety communication (alert)
- Check RCA effectiveness

Morenci: Runaway Vac Truck

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- **Summary**: An unmanned Vac Truck powered through the chocks during service and came within one foot of a mechanic walking in the area.

- **Description**: Two employees were operating a GapVax HV56 Vac Truck to perform routine work at the mill. The operator set the parking brake and exited the truck to check it was in the correct spot. The operator re-entered the truck, turned on the hydraulics and blower, then exited again to start work. There was no suction from the hose, so the operator asked the trainee to use the external control panel to rev up the RPMs to generate suction. When doing this, the truck powered through the chocks and proceeded down the alley unmanned. The trainee ran after the truck and was able to lower the RPMs using the external control panel to bring the truck to a stop. During the incident, the truck travelled 176 feet and came within one foot of a mechanic walking in the area. No injuries or property damage were sustained.

  An initial investigation revealed the truck was not put in neutral gear before the parking brake was applied. In addition, the external control panel was found to be improperly wired, allowing power to be distributed to it.

PROBABLE DIRECT CAUSES

- Incorrect gear selection
- Incorrect parking procedure
- Lack of experience
- Improper wiring to the external control panel

IMMEDIATE CORRECTIVE ACTION(S)

- Notified supervision and safety
- Removed all Vac Trucks from service, including contractor equipment
- Pulled all employee training records / certifications and had OEM retrain employees
- Brought manufacturer onsite to provide information / training

REQUIRED ACTIONS(S)

- Created in-service inspection to ensure interlock is providing power to remote controls
- Now require all equipment with Power Take-Off (PTO) devices to meet inspection criteria before being put into service
- Improve Vac Truck training

Diagram of Situation

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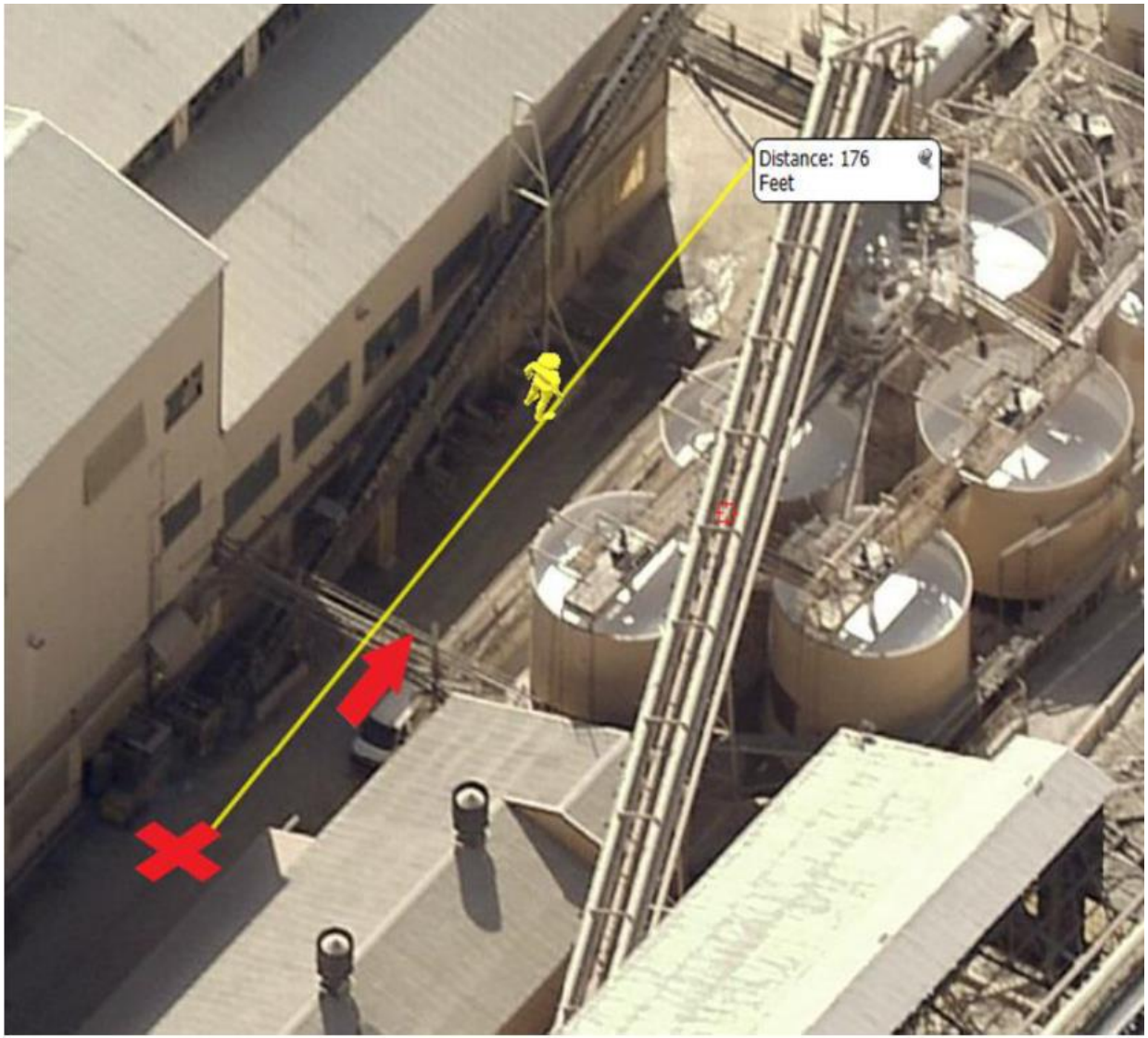

Safety Alert Notification: Property Damage

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- **Summary**: A bi-annual, third-party inspection of lifting devices revealed visible cracks in two 6.5-ton bow shackles.
- **Description**: A technician with Zurich Engineering was performing a bi-annual inspection* of lifting devices and discovered visible cracks in the bow section of two 6.5-ton bow shackles manufactured by Green Pin. Failure analysis by Exponent identified the cracks were caused by fatigue crack initiation and growth through cycle loading. The shackles were part of a four-leg chain sling attached to a lifting frame that hoists 11-ton crucibles. The frame is subjected to approximately 24 – 36 lifting operations per day.

Crane Policy Feedback

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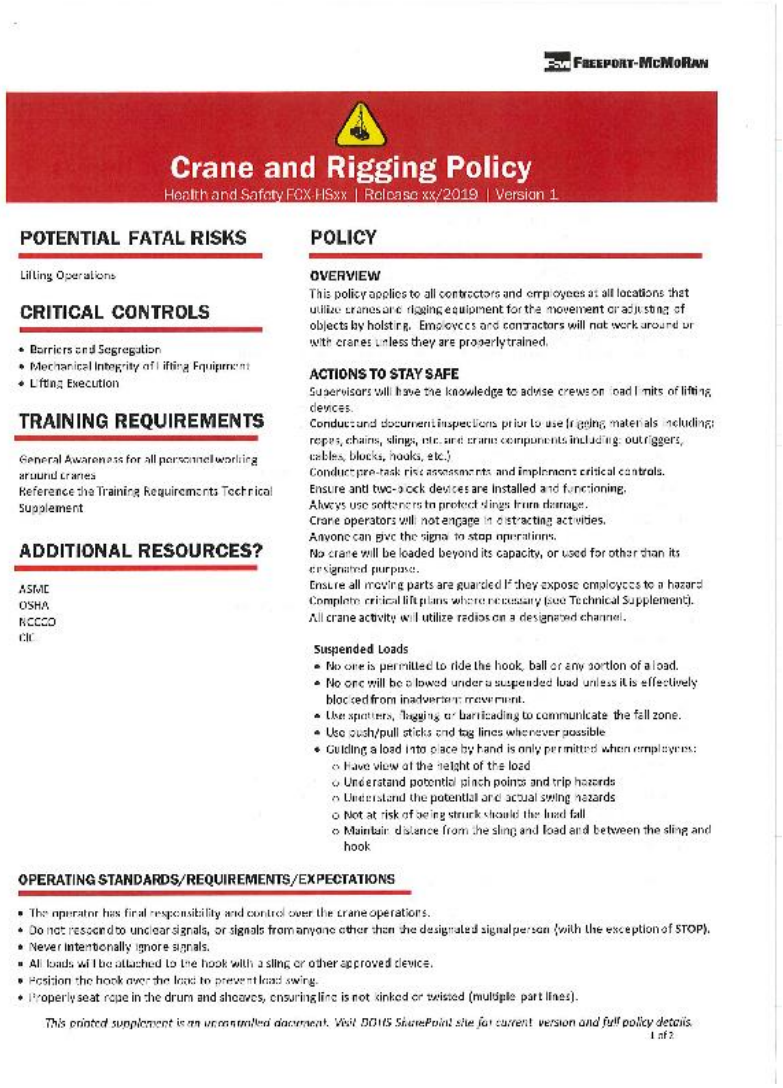
bwiley@fmi.com

cmull@fmi.com



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Crane and Rigging Policy

Health and Safety FCX-HSxx | Release xx/2019 | Version 1

POTENTIAL FATAL RISKS

Lifting Operations

CRITICAL CONTROLS

- Barriers and Segregation
- Mechanical Integrity of Lifting Equipment
- Lifting Execution

TRAINING REQUIREMENTS

General Awareness for all personnel working around cranes
Reference the Training Requirements Technical Supplement

ADDITIONAL RESOURCES?

ASME
OSHA
NCCCO
CIC

POLICY

OVERVIEW

This policy applies to all contractors and employees at all locations that utilize cranes and rigging equipment for the movement or adjusting of objects by hoisting. Employees and contractors will not work around or with cranes unless they are properly trained.

ACTIONS TO STAY SAFE

Supervisors will have the knowledge to advise crews on load limits of lifting devices.
Conduct and document inspections prior to use rigging materials (including: ropes, chains, slings, etc. and crane components including: outriggers, cables, blocks, hooks, etc.)
Conduct pre-task risk assessments and implement critical controls.
Ensure anti two-block devices are installed and functioning.
Always use softeners to protect slings from damage.
Crane operators will not engage in distracting activities.
Anyone can give the signal to stop operations.
No crane will be loaded beyond its capacity, or used for other than its designated purpose.
Ensure all moving parts are guarded if they expose employees to a hazard
Complete critical lift plans where necessary (see Technical Supplement).
All crane activity will utilize radios on a designated channel.

Suspended Loads

- No one is permitted to ride the hook, ball or any portion of a load.
- No one will be allowed under a suspended load unless it is effectively blocked from inadvertent movement.
- Use spotters, flagging or barricading to communicate the fall zone.
- Use push/pull sticks and tag lines whenever possible
- Guiding a load into place by hand is only permitted when employees:
  - Have view of the height of the load
  - Understand potential pinch points and trip hazards
  - Understand the potential and actual swing hazards
  - Not at risk of being struck should the load fall
  - Maintain distance from the sling and load and between the sling and hook

OPERATING STANDARDS/REQUIREMENTS/EXPECTATIONS

- The operator has final responsibility and control over the crane operations.
- Do not respond to unclear signals, or signals from anyone other than the designated signal person (with the exception of STOP).
- Never intentionally ignore signals.
- All loads will be attached to the hook with a sling or other approved device.
- Position the hook over the load to prevent load swing.
- Properly seat rope in the drum and sheaves, ensuring line is not kinked or twisted (multiple part lines).

This printed supplement is an uncontrolled document. Visit DOHS SharePoint site for current version and full policy details.

1 of 2

On boarding

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Contractor Contact Information Sheet (Provide to Safety Department)

Company Name/ MSHA ID					
	Street		City	State	Zip Code
Corporate Physical Address:					
Corporate Mailing Address:					
Project #	Contract #	Type of Work	Area Working		FMI Contact
Company MSHA TNG Plan	Yes □ **No** □	Approved instructor	Name(s)/Organization	Instructor's	MIN. Number

Corporate Contacts				
Title	Name (First, MI, Last)	Phone #	Cell Phone#	E-mail Address
Owner/President				
Safety Contact				
Office Contact				

On Site Management				
Local Office Location(s)				
Title	Name (First, MI, Last)	Phone #	Cell Phone#	E-mail Address

Expected number of Employees Coming on Site:	

What Do We Need to Focus On?

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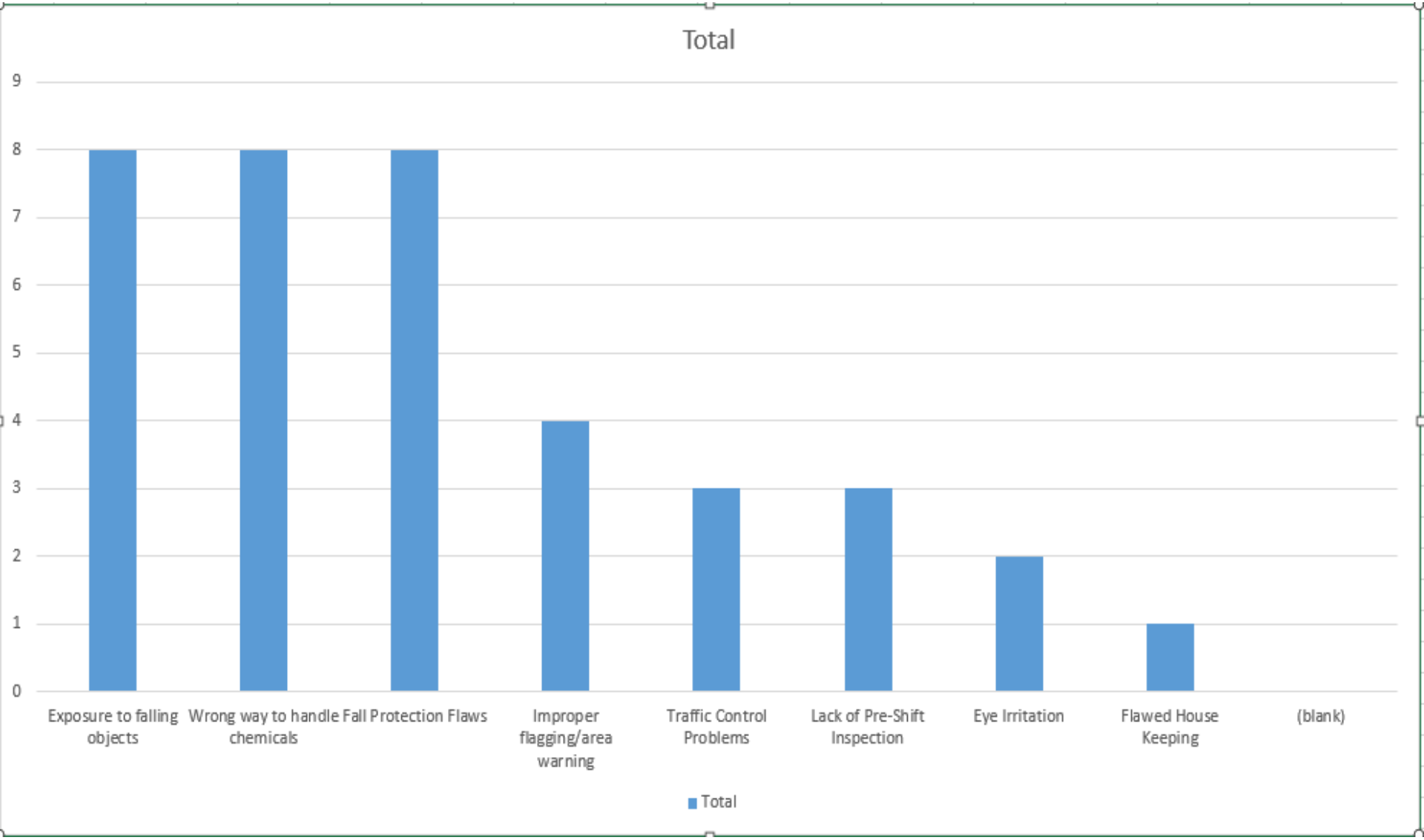

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