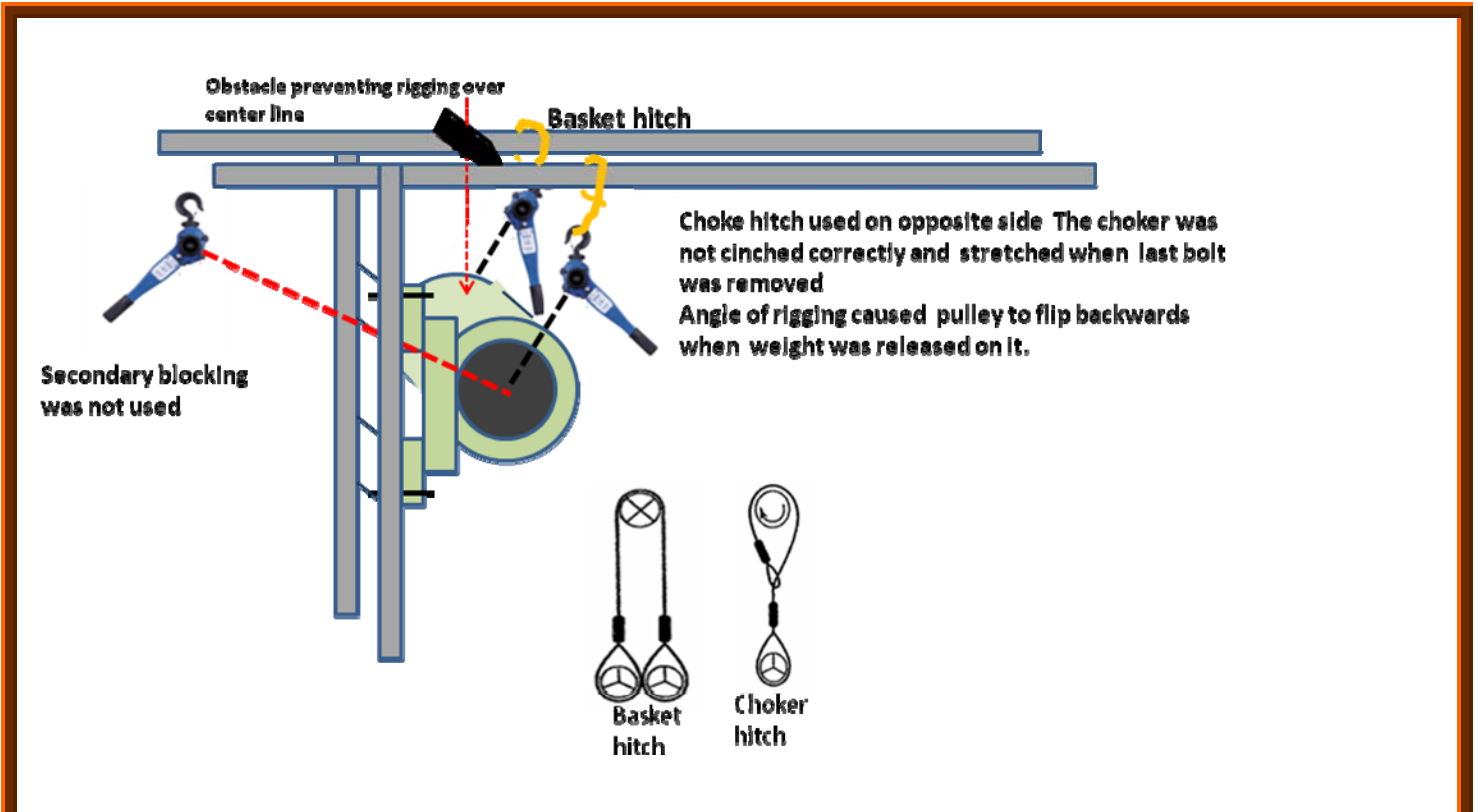




SAFETY ALERT NOTIFICATION

This is NOT an investigation report. It is a NOTIFICATION of a Significant Incident that has taken place at a Freeport-McMoRan location. The information below is a preliminary assessment and not a formal investigation.

OPERATION:	Morenci Operations			Incident:	
ISSUED BY:	Bill Sircy			Injury:	RD
DATE:	2/12/14			Property Damage:	
TIME:	1330			Process Loss:	
LOCATION/DEPARTMENT:	Crushing and Conveying				
INCIDENT DESCRIPTION:	<p>A crew comprised of Jacobs Small Cap employees and FMCO crush and convey mechanics were assigned to replace the snub pulley on South MSC. Employees were standing on conveyor framework to perform task (with fall protection). As the final bolt was removed from the pillow block bearing the pulley fell off the jacking bolts and flipped back in a pendulum motion while supported by come-a-longs. The employee was unable to move out of the line of fire and pinched his left thumb between the impact wrench and the support structure.</p> <p>The nylon straps used in the rigging were placed off of the pulley center line to facilitate moving the pulley to the location where it would be pulled out from the structure. This created the potential for pendulum swing once mounting bolts were removed. Different rigging methods were used for the nylon straps on each side of the pulley. A basket hitch used on one side and a choke hitch on the other. The two techniques for suspending the come-a-longs had a direct influence on the event. The basket hitch did not stretch when weight was placed on it, the choked hitch stretched from not being cinched properly, allowing the pulley to simultaneously drop and flip backwards when the last bolt was removed.</p>				
DETAILS OF INJURY TYPE:	Restricted duty from fractures to left thumb and avulsion.				
POTENTIAL FOR INJURY:	Fatality	Lost Time	Permanent Disability	Other Potential	
			XX		
PROBABLE DIRECT CAUSES:	<ul style="list-style-type: none"> One side of the rigging (nylon strap) was not cinched up properly and stretched under load, allowing the load to drop when the last bolt was removed The nylon straps supporting come-a-longs above the pulley were about 12 inches off center line causing pulley to flip backwards when the last bolt was removed. Absence of secondary blocking to control pendulum movement. 				
CONTRIBUTING FACTORS	<ul style="list-style-type: none"> The Critical Risk Assessment performed did not address all energies. Ineffective work platform caused awkward positioning for task. Employee experience: Task has been performed several times in past without incident. Task Coordination: Employees working on opposite sides of pulley did not follow the same rigging methods. 				



IMMEDIATE CORRECTIVE ACTION:

- Suspended task and activated emergency response
- Reviewed proper sling use and effective task analysis
- Work with Jacobs and FMMO personnel to complete RCA

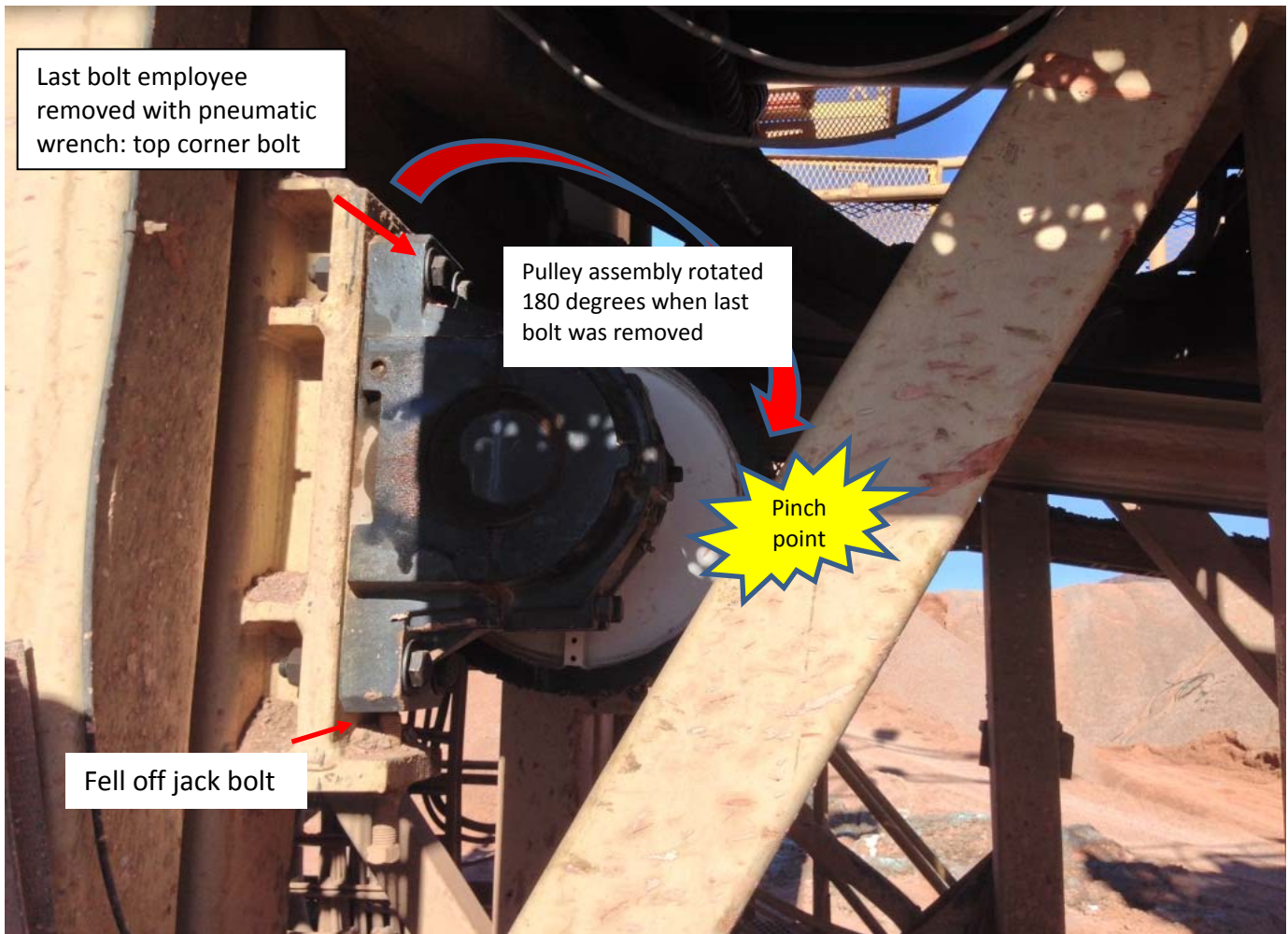
REQUIRED ACTIONS:

1. Conduct review of job safety analysis for energy control concepts,
 - Basic fundamentals of risk assessments
 - Consequence thinking and Fatal Risk assessments
 - Experience and complacency
 - Task coordination between employees.
 - Communicate expectations and accountability
2. Modify conveyor safety standard to include guidance for pulley removal/ installation and include key energy control points. Includes rigging guidance, methods, tie off points and geometry, and work platforms.
3. Supervisors will perform Fatal Risk Assessments for HEHI level projects prior to performing task. Involve and review with affected groups/crafts prior to work execution and include contractors.
4. Perform work platform survey in risk assessments for conditions of insufficient footing. Evaluate and implement recommendations.
5. Ensure the rigging or blocking will prevent unplanned movement of components. Develop a field check form to check application of proper rigging principles based on site specific circumstances.
6. Analyze options on this and similar tasks to remove line of fire exposure by re-locating mounting bolts where they can be spun outside line of fire zone, or use of blocking devices that can be manipulated outside line of fire zone.
7. Incorporate Job Safety Analysis processes with Fatal Risk Assessments to analyze other potential energies that may occur in the performance of the tasks. (See appendix 1 and 2)

Insert Photos below



Position of pulley after event occurred.
Note: One side is lower due to rigging being stretched
after it shock loaded from being improperly cinched.



The employee was operating a pneumatic wrench. As the last bolt was loosened, the pulley flipped back off the jack bolt. He did not have time to released impact wrench and his thumb was smashed between the impact wrench and the conveyor structure.

This is NOT an investigation report. It is a NOTIFICATION of a Significant Incident that has taken place at a Freeport-McMoRan operation and is being communicated to enhance safety awareness should a similar situation exist. The information above is a preliminary assessment of the event and is not a formal investigation.



Appendix 1

PRE JOB RISK ASSESSMENT

JOB/TASK IDENTIFICATION		DIVISION		DEPARTMENT	
SUPERVISOR IN CHARGE OF JOB		AREA		DATE	
CRITICAL RISK IDENTIFICATION (High Energy High Impact Policies)					
HOT WORK <input type="checkbox"/> Y <input type="checkbox"/> N OPEN HOLE <input type="checkbox"/> Y <input type="checkbox"/> N	CONFINED SPACE <input type="checkbox"/> Y <input type="checkbox"/> N USE OF EXPLOSIVES <input type="checkbox"/> Y <input type="checkbox"/> N	WORKING AT HEIGHTS <input type="checkbox"/> Y <input type="checkbox"/> N RADIOACTIVE SOURCES <input type="checkbox"/> Y <input type="checkbox"/> N	CRITICAL LIFTING <input type="checkbox"/> Y <input type="checkbox"/> N LOTOTO <input type="checkbox"/> Y <input type="checkbox"/> N	EXCAVATIONS/TRENCHING <input type="checkbox"/> Y <input type="checkbox"/> N WORK ON ENERGIZED EQUIPMENT <input type="checkbox"/> Y <input type="checkbox"/> N	
NOTES FOR CRITICAL WORK:					
MAKE SURE TO COMPLETE AND APPROVE THE APPLICABLE WORK PERMITS IN ACCORDANCE WITH BRANCH POLICIES EVALUATE ALL CRITICAL WORK TO DETERMINE IF QUALIFIED PERSONNEL ARE NEEDED TO ASSIST WITH ENERGY IDENTIFICATION, ISOLATION AND/OR CONTROL WORK SHALL NOT BEGIN UNTIL ALL INSPECTIONS, PERMITS, TRAINING, AND CONTROL MEASURES (INCLUDING PERMITS) HAVE BEEN IMPLEMENTED					
PRE - OPERATIONAL CHECKLIST FOR HAZARD IDENTIFICATION AND RISK ASSESSMENT					
ENERGY INVENTORY <input type="checkbox"/> Y <input type="checkbox"/> N ELECTRIC ENERGY <input type="checkbox"/> Y <input type="checkbox"/> N HYDRAULIC ENERGY <input type="checkbox"/> Y <input type="checkbox"/> N PNEUMATIC ENERGY <input type="checkbox"/> Y <input type="checkbox"/> N THERMAL ENERGY <input type="checkbox"/> Y <input type="checkbox"/> N CHEMICAL ENERGY <input type="checkbox"/> Y <input type="checkbox"/> N RADIATION <input type="checkbox"/> Y <input type="checkbox"/> N MECHANIC ENERGY <input type="checkbox"/> Y <input type="checkbox"/> N GRAVITATIONAL ENERGY <input type="checkbox"/> Y <input type="checkbox"/> N OTHERS: <input type="checkbox"/> Y <input type="checkbox"/> N	FALL OF PERSON <input type="checkbox"/> Y <input type="checkbox"/> N WALKWAY/GRATING REMOVAL <input type="checkbox"/> Y <input type="checkbox"/> N RAILING REMOVAL <input type="checkbox"/> Y <input type="checkbox"/> N HOLES/HATCH IN FLOOR <input type="checkbox"/> Y <input type="checkbox"/> N TRAVELWAY INTERRUPTION <input type="checkbox"/> Y <input type="checkbox"/> N WORK ON EQUIPMENT <input type="checkbox"/> Y <input type="checkbox"/> N WORK FROM LADDERS <input type="checkbox"/> Y <input type="checkbox"/> N WORK ON CONVEYOR BELTS <input type="checkbox"/> Y <input type="checkbox"/> N SAFE ACCESS PROVIDED <input type="checkbox"/> Y <input type="checkbox"/> N RESCUE PLAN (fall/arrest) <input type="checkbox"/> Y <input type="checkbox"/> N	TOOLS/EQUIPMENT <input type="checkbox"/> Y <input type="checkbox"/> N CONTINUITY CHECKS COMPLETED <input type="checkbox"/> Y <input type="checkbox"/> N WHIP CHECKS/FITTINGS FOR AIR <input type="checkbox"/> Y <input type="checkbox"/> N SAFE HYDRAULIC CONNECTIONS <input type="checkbox"/> Y <input type="checkbox"/> N CERTIFIED PRESSURE VESSELS <input type="checkbox"/> Y <input type="checkbox"/> N WELDING LEADS/LUGS COVERED <input type="checkbox"/> Y <input type="checkbox"/> N MOBILE EQUIPMENT INSPECTED <input type="checkbox"/> Y <input type="checkbox"/> N ADEQUATE ILLUMINATION <input type="checkbox"/> Y <input type="checkbox"/> N DOUBLE INSULATED/GROUNDED <input type="checkbox"/> Y <input type="checkbox"/> N NO SAFETY DEFECTS <input type="checkbox"/> Y <input type="checkbox"/> N	LIFTING OF LOADS <input type="checkbox"/> Y <input type="checkbox"/> N QUALIFIED CRANE OPERATOR <input type="checkbox"/> Y <input type="checkbox"/> N AUTHORIZED RIGGER <input type="checkbox"/> Y <input type="checkbox"/> N CERTIFIED/INSPECTED CRANE <input type="checkbox"/> Y <input type="checkbox"/> N RIGGING RATED APPROPRIATELY <input type="checkbox"/> Y <input type="checkbox"/> N LIFTING ZONES DEMARCATED <input type="checkbox"/> Y <input type="checkbox"/> N OVERHEAD CLEARANCES MET <input type="checkbox"/> Y <input type="checkbox"/> N GROUND CONDITIONS SAFE <input type="checkbox"/> Y <input type="checkbox"/> N COMMUNICATION/SIGNALING <input type="checkbox"/> Y <input type="checkbox"/> N GOOD WEATHER FOR LIFTING <input type="checkbox"/> Y <input type="checkbox"/> N	USE OF CHEMICAL PRODUCTS <input type="checkbox"/> Y <input type="checkbox"/> N APPROVED PRODUCT <input type="checkbox"/> Y <input type="checkbox"/> N MSDS SHEET AVAILABLE <input type="checkbox"/> Y <input type="checkbox"/> N PROPERLY STORED <input type="checkbox"/> Y <input type="checkbox"/> N SEPARATED IF HAZARDOUS <input type="checkbox"/> Y <input type="checkbox"/> N APPROPRIATE PPE AVAILABLE <input type="checkbox"/> Y <input type="checkbox"/> N CHEMICALS USED: 1 _____ 2 _____ 3 _____	
OTHERS: <input type="checkbox"/> Y <input type="checkbox"/> N MODIFICATIONS TO SAFE WORK PLATFORMS <input type="checkbox"/> Y <input type="checkbox"/> N REQUIRES BARRICADING/GUARDING IN ACCORDANCE WITH OPEN HOLE PROCEDURES <input type="checkbox"/> Y <input type="checkbox"/> N					
POINT OF LOCKOUT <input type="checkbox"/> Y <input type="checkbox"/> N 1 _____ 2 _____ 3 _____ 4 _____ 5 _____	AREA DEMARCATION (flagging/warnings) <input type="checkbox"/> Y <input type="checkbox"/> N FALL OF MATERIALS <input type="checkbox"/> Y <input type="checkbox"/> N LIFTING/MATERIAL HANDLING <input type="checkbox"/> Y <input type="checkbox"/> N RED FLAGGING <input type="checkbox"/> Y <input type="checkbox"/> N YELLOW FLAGGING <input type="checkbox"/> Y <input type="checkbox"/> N CONES USED <input type="checkbox"/> Y <input type="checkbox"/> N OTHER TYPES OF DEMARCATATION <input type="checkbox"/> Y <input type="checkbox"/> N OTHERS: <input type="checkbox"/> Y <input type="checkbox"/> N	PERSONAL PROTECTIVE EQUIPMENT <input type="checkbox"/> Y <input type="checkbox"/> N HEARING PROTECTION <input type="checkbox"/> Y <input type="checkbox"/> N WELDER EQUIPMENT <input type="checkbox"/> Y <input type="checkbox"/> N FALL ARREST EQUIPMENT <input type="checkbox"/> Y <input type="checkbox"/> N RESPIRATORS <input type="checkbox"/> Y <input type="checkbox"/> N LIFE JACKETS <input type="checkbox"/> Y <input type="checkbox"/> N CHEMICAL RESISTANT PPE <input type="checkbox"/> Y <input type="checkbox"/> N OTHER PPE (LIST) <input type="checkbox"/> Y <input type="checkbox"/> N	CONFINED SPACE <input type="checkbox"/> Y <input type="checkbox"/> N WORK IN HOPPERS/SILOS/BINS <input type="checkbox"/> Y <input type="checkbox"/> N WORK IN CHUTES/FEEDERS <input type="checkbox"/> Y <input type="checkbox"/> N WORK IN TANKS/MIXBOXES <input type="checkbox"/> Y <input type="checkbox"/> N HOT WORK IN CONFINED SPACE <input type="checkbox"/> Y <input type="checkbox"/> N ENGULFMENT HAZARDS <input type="checkbox"/> Y <input type="checkbox"/> N PERMIT REQUIRED <input type="checkbox"/> Y <input type="checkbox"/> N EMPLOYEES TRAINED <input type="checkbox"/> Y <input type="checkbox"/> N	EMERGENCY <input type="checkbox"/> Y <input type="checkbox"/> N IDENTIFICATION <input type="checkbox"/> Y <input type="checkbox"/> N EXTINGUISHERS <input type="checkbox"/> Y <input type="checkbox"/> N HYDRANTS <input type="checkbox"/> Y <input type="checkbox"/> N SUPPRESSION SYSTEMS <input type="checkbox"/> Y <input type="checkbox"/> N FIRE WATCH <input type="checkbox"/> Y <input type="checkbox"/> N EVACUATION ROUTES KNOWN <input type="checkbox"/> Y <input type="checkbox"/> N EXITS UNOBSTRUCTED <input type="checkbox"/> Y <input type="checkbox"/> N MEETING POINTS <input type="checkbox"/> Y <input type="checkbox"/> N	
IDENTIFY ALL NECESSARY MEANS OF ENERGY ISOLATION (LOTOTO) - REFER TO GENERAL ENERGY CONTROL POLICY (98-005)					
FLAGGING/DEMARCATION ALONE IS NOT SUFFICIENT WHEN FALL OF PERSON HAZARDS OR OTHER SERIOUS HAZARDS EXIST		ENSURE ALL TOOLS ARE IN GOOD CONDITION AND USE APPROPRIATE HAND PROTECTION		CHECK ALL THE TOOLS ARE IN GOOD CONDITION AND USE APPROPRIATE HAND PROTECTION	

