PFE LESSONS LEARNED: Hydromet Tank Fire





Fire

Incident Overview

El Abra, May 13, 2024

Three contractors were performing hot work on a platform at the tank farm. A failure in the undersized extension cord caused a fire at the welding machine, which subsequently spread to the fire blanket. One employee, who was tied-off, was unable to get free from the harness until the lanyard was completely burned through by the fire. The other employee attempted to suppress the fire with a portable fire extinguisher but was unsuccessful. The emergency response team was notified and quickly arrived on scene to extinguish the fire.



Causal Factors

- The contract company modified the extension cord plug from a 10 AMP to a 15 AMP plug, which caused the cord to overheat.
- The area supervisor validated the hot work permit without evaluating the controls/tasks in the field.
- The contractors were unaware the fire blanket was contaminated with flammable organic material from the tank being overfilled the prior day.

Site Specific Actions



• **Substitution** - El Abra certified electricians will review existing extension cords on site. They will remove any modified or non-compliant extension cords. These will be replaced with approved standard extension cords. Extension cords will be audited by site electricians quarterly.



• Administrative - Manager or delegate approval required for hot work in the SX/EW.



Administrative - Reinforce specific roles and responsibilities of each task within the Hot Work training.



• Administrative - Area-specific training will be included in the onboarding process for all employees (El Abra and Contractors).

Steps YOU Can Take to Prevent Repeat Incidents





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Hydromet Employees

- Inspect extension cords, and if defective, remove from work areas immediately.
- Do not modify any extension cord plugs unless there is an established process for your site to do so safely. The best practice is to purchase extension cords that are manufactured for the required load rating. In all cases, follow site-specific procedures.



Freeport Leadership

- Area supervisors, inspect work area before approving hot work permits.
- Routinely follow-up with contractors working in your area not just at the beginning of a job, but throughout to help ensure safety standards are met.
- · Verify contractors understand the risks and controls for the work they are performing.
- · Line out contractors with site-specific expectations, and verify standards are being followed/met.



All of Us

- · Stop work if you do not have the correct tools or equipment.
- Assess risks and ensure controls are in place before, during and after a job.
- Be familiar with and train on the types of chemicals in your work area.
- Inspect extension cords before using, and do not use if defective.



Potential Fatal Event: Hydromet Tank Fire

FREEPORT-McMoRan PFE # 2024-11

Event ID # 20015578

Preliminary Incident Details	
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Operation	El Abra
Date / Time	May 13, 2024 / 4:05 p.m.
Event Type	Injury – First Aid
Summary	Three contractors were performing hot work on a platform at the tank farm. A failure in the undersized extension cord caused a fire at the welding machine, which subsequently spread to the fire blanket. One employee, who was tied-off, was unable to get free from the harness until the lanyard was completely burned through by the fire. The other employee attempted to suppress the fire with a portable fire extinguisher but was unsuccessful. The emergency response team was notified and quickly arrived on scene to extinguish the fire.
Risk Category	Actionable – Significant (3) Likely (3)
Findings / Missing Controls	 Improper selection of appropriately rated extension cord. Improper evaluation of fire risk and exposure to electrolyte backwash tank. Improper use of fire blanket – the blanket was left in place for a week and was subsequently contaminated with organic material. Standard operating procedures were not developed for hot work around the tank farm.
Applicable Policies / Procedures	 FCX-HS06 Hot Work Policy FCX-HS02 Working at Heights Policy GAre0012 El Abra Hot Work Regulation
Employee Condition	One employee suffered superficial burns to right ear.
Contact	 Mack Rojas, Manager-Safety, Health and Technical Training José Guzman, Senior Manager-Engineering and Services

Photos / Links





Platform where fire started.

Reactor and burned lanyard.

Burned lanyard.



Burned welding machine.



Failed extension cord.