



# Compressor Flash Fire

## What happened?

While mechanics were in the process of re-configuring Flash Gas Compressor (FGC) Unit 'A', a flash fire occurred on the 1st Stage Cylinders #1 & #3 (Re-configuring, aka single acting a cylinder, refers to the practice of physically removing a suction valve on the end of a cylinder to reduce the capacity and horsepower of a compressor). The re-configuring process had been conducted 5 times in the past month. The fire resulted in 2 employee Lost Time Incidents, but no environmental impact. One of 2 IPs was not wearing gloves, and incurred burns to the hands. Second IP was wearing gloves and incurred no burns to the hands.

## What went wrong?

Potential fuel source was opening a local bleed down valve on a FGC 'A' cylinder. Potential Ignition source was a 'hot' FGC turbocharger. There was a misunderstanding among facility personnel on when to conduct JSAs for routine vs non-routine work. LOTO procedure existed, but did not stipulate cool-down time or the safest way to depressure the FGC system.

## Why did it happen?

- IP knowledge of Company JSA, MOC, PTW, LOTO requirements was insufficient.
- During bleed down operations conducted prior to opening equipment, IPs did not check panel to see if system pressure was low enough to open localized bleed valve to relieve final pressure.
- Decision to re-configure compressor was made at the mechanic job level and not approved by PIC.
- The re-configuring of the compressor entails physical changes to the compression equipment, and is subject to the MOC process.

## What areas were identified for improvement?

- Clarify MOC policy and train personnel to ensure they understand when an MOC is required
- Reinforce that JSAs are a 'Process' to identify & discuss hazards
- Clarify conflicting JSA requirement criteria (routine vs non-routine tasks, when a JSA is absolutely required, etc.)
- Re-evaluate hazards/ revisit JSA when scope of work changes
- LOTO and maintenance procedures should be sufficiently detailed to address hazards
- Evaluate PPE Hazard Assessment to ensure proper PPE (gloves) for similar work conditions

## What will WE do to prevent this from happening HERE?

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COS2016056

IP – Injured Person	JSA – Job Safety Analysis	LOTO – Lock Out Tag Out
MOC – Management of Change	PTW – Permit to Work	PIC – Person in Charge
PPE – Personal Protective Equipment		