



HEALTH, SAFETY,
& ENVIRONMENTAL



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HPU Fire During Startup

In a recent incident involving another contract company at an offshore facility, while starting up a **55K freshwater high-pressure unit (HPU)** for pressure washing, an operator heard a “pop” about a minute after startup. Immediately after, **a small flame flashed at the starter solenoid cable connection**, causing minor charring at the electrical connection. No injuries were reported. The unit was **Immediately shut down**, power was disconnected, and the equipment was **removed from service**. This event happened fast and without warning.

Why this Matters:

Offshore equipment is constantly exposed to **saltwater mist, humidity, and vibration**. Over time, these conditions can damage electrical connections. If wiring or terminals **become loose, corroded, or contaminated**, they can overheat and ignite when power is applied, especially during startup. Quick reaction and immediate shutdown prevented a more serious incident.



What could have happened:

This incident had a minor outcome, but could have easily escalated:

- The fire could have grown and ignited nearby hoses, insulation, or fuel sources
- Personnel working near the unit could have suffered burns or smoke inhalation
- The fire could have spread into the equipment enclosure, causing major equipment loss
- Loss of control at startup could have resulted in platform emergency or shutdown
- Delayed response could have led to serious injury or a significant fire event

What We Need to Do:

- **Inspect electrical connections** on HPUs and similar equipment:
 - Look for loose terminals, damaged insulation, corrosion, or signs of overheating
- **Check equipment stored offshore** for:
 - Salt buildup, moisture intrusion, and corrosion
- **Protect electrical components** when equipment is stored on vessels or idle for long periods:
 - Use covers or weather protection when practical
- **Do no start equipment** if abnormal conditions are observed:
 - Burning smells, popping sounds, sparks, or visible damage

Any equipment found with questionable electrical integrity must be **tagged out and removed from service**.

Key Takeaways:

Small electrical issues can turn into fires very quickly. Startup is a **high-risk moment** for electrical failures. Saltwater exposure and corrosion should **never be ignored**. If something doesn't sound, smell, or look right, **stop and shut it down**. Continuous vigilance and preventative maintenance are critical to protecting personnel, assets, and operations.

Proper use of the **GIS LIFE Processes** can help to create a **FAIL-SAFE** Work Environment.



SAFETY ALERT