



September 1 — Drain It Before You Break It

Employees were tasked with changing an acid pump. Everything was locked out properly and they had all the correct PPE. When looking over the job I noticed where the line break was going to occur, it is a low spot in the pipe. After looking at the prints on the new pump I noticed there is a drain on the bottom of the pump that will allow the piping to be completely drained.

Reviewed the print with employees and had them open that drain first to help alleviate this hazard.

Look Beyond the Lock

A proper lockout is an essential first step—but it isn't always the last step.

While preparing to change an acid pump, the crew had completed the lockout and had the proper PPE. However, a closer look at the job revealed another concern. The planned line break was located at a low point in the piping, where material could potentially remain trapped.

Instead of simply assuming the lockout had made the job safe, the crew reviewed the pump prints and found a drain that could be used to completely drain the piping before breaking the line.

That extra review changed the way the job could be performed. The equipment was locked out, but the crew took the additional step of controlling what could still be inside the piping.

This is a great reminder that safe work requires us to look beyond the checklist. Understanding the equipment, reviewing drawings, identifying low points and asking what could still be trapped in a system can prevent an unexpected release when a line is opened.

Hazards

- Trapped acid or process material
- Unexpected release of product
- Chemical exposure
- Pressure or residual energy
- Line of fire exposure during a line break
- Relying on lockout alone without verifying the system is drained
- Failing to review available drains or isolation points

Words of Wisdom

Lockout controls the energy. Verification controls the unexpected.

Pause and Think

- When breaking into a line, what could still be trapped inside even after the equipment is locked out?
- Do you know where the drains are located on the equipment you're working on?
- When was the last time you reviewed a drawing or print before starting a maintenance job?
- What low points, pockets, or dead legs could hold product in the system?
- How can we verify that a line is actually ready to be opened?
- Are we relying on the lockout, or are we verifying the condition of the system?

Closing Thought

Don't stop at "It's locked out." Look at the entire system, understand what could still be trapped, and take the extra step to make the job safe before breaking the line.