Process Safety Beacon 20 YEARS ANNIVERSARY
Messages for Manufacturing Personnel
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Communication – the heart of safe operations

October 2022

Figure 1.Flowmeter ready for calibration

An inexperienced operator was running a process that involved regular transfers of flammable solvents. Part of the operation was shut down to allow a maintenance technician to remove a flow meter for repair and calibration in the shop. The rest of the operation continued. The meter was reinstalled, and the maintenance person left the area. The operator assumed that it was ready for operation and began a solvent transfer. One flange was not properly tightened, and the operator was sprayed with solvent. He used the safety shower and was not injured. The solvent spill was cleaned up without incident.

Why did this happen? Many of the process safety systems we use now were not yet in place. Lockout-Tagout (LOTO) was very informal and used only tags vs. locks and tags. There was no work permit system or formal communication method for maintenance work.

Deeper review shows that the operator may have been anxious to get the process back in operation and didn't verify that the work was complete. Perhaps the technician needed another gasket. The maintenance technician did not communicate with the operator about the status before leaving the process area. The absence of a tag on the solvent isolation valve was interpreted as 'work complete'.

Did You Know?

- Many safety systems we use today are the result of incidents that occurred in the past. They are intended to prevent those errors from recurring.
- Communication is always important, but even more so when several work groups are involved. As the number of groups increase, the need for formal communication also increases.
- Many companies use a work permit system to ensure communication before, during, and after the approved work. It usually includes a safety or hazard review, work area inspection, and approval by an authorized person.
- Work permits are not just a formality; they are a tool to ensure the work scope is well defined, all groups know what will be done, and that any additional permits (LOTO, hot work or confined space) are used properly. They also provide a way to verify all actions are properly completed and the work can proceed safely.
- The scope of work can change as the work progresses. It is important for all groups to communicate changes and evaluate if it is safe to continue work. This may mean shutting the work down until it can be reviewed, and a revised work plan is developed and approved.

What Can You Do?

- Develop a good understanding of how your company's permit systems work.
- Actively participate in hazard reviews for permit-required work. You may be the only one there who knows about a particular situation or hazard.
- Know your role during periods of non-standard work in your area—understand the work and what is necessary to resume normal operation.
- Follow the work plan to restart the process. If something is not correct, stop and ask before proceeding. A minor delay is much better than an incident or near-miss.
- Make sure that the area is cleared of work debris and tools so the process can be safely operated. Process materials or equipment debris are proper labeled for disposal.

If you are not sure if equipment is ready after maintenance – ASK!!