

Manage Temporary Changes — Including Clamps July 2022



▲ Pipe clamps can temporarily fix a leaking valve. Image courtesy of the Process Safety Beacon Committee.

A plant experienced a piping leak and could not shut down to properly repair it. Using their leak clamp procedure, they consulted the required experts and approved the use of a temporary clamp for six months. After that time, the status of the clamp was to be reviewed, evaluated, and if acceptable, reapproved.

Two years later, this clamp started to leak. The reevaluations and reapprovals had not taken place, and the clamp remained in service for much longer than the company's policies and procedures allowed.

A pipe clamp is a temporary solution when proper repairs cannot be made; it is weaker than the original piping. Moreover, the underlying problem that led to the original leak is still present and must be fixed. Pipe clamps are not meant to be permanent solutions.

All temporary changes must be managed under the company's management of change (MOC) process. Best practice is to enter a turnaround-type work order so that maintenance can plan to repair or replace the leaking pipe at the next turnaround.

Did You Know?

- Pipe clamps are one of several types of engineered clamp-on, leak-sealing devices. They place a pressure envelope around the location of the leak, then use pumped-in polymers to fill their internal space and seal any gaps. Pipe clamps are effective at temporarily stopping a leak.
- All changes to a hazardous process should be reviewed, approved, and managed under your site's management of change (MOC) process.
- Pipe clamps are not intended to last forever. Eventually, the pipe or valve should be replaced with one that conforms to the original pipe specification.
- It is easy to lose track of a temporary repair like a pipe clamp, even though it can be seen.
- The goal of an asset integrity system is to maintain the reliability of process equipment. When this system is not followed, the equipment reliability declines, and safety is compromised.
- A bypassed control loop or device may not be as obvious.

What Can You Do?

- When you see a temporary repair, ask your supervisor about it. Your question may point out an overdue review or inspection.
- Each temporary repair should have an approved temporary MOC associated with it. Temporary MOCs must be managed rigorously, including a regular check and reauthorization until the repair can be replaced with a permanent solution at the next turnaround.
- Various components of the process can be temporarily bypassed for inspection or calibration. If you see this during your rounds, point it out to your supervisor, but do not make any changes unless you have been authorized.
- Bypassed control systems can be more difficult to find, but some control systems list which control loops are in bypass, deactivated, or out of service.

Temporary means temporary!