

WE RECOGNISE CHANGE



Management of change (MOC) failure has been recognised for a long time in the oil and gas industry as being a cause of process safety incidents. It is normal for companies to have a management of change process in place, but despite this, the IOGP fatality data indicates that MOC continues to be linked to many fatal accidents. Most typically this is when a change was made without passing it through the MOC process, meaning that it did not get thoroughly reviewed and risk assessed. This can be because it was not realised that the change needed a MOC, so it is important that teams understand and are sensitive to what changes need to pass through the MOC process. This enables them to look out for change and speak up if they see a change occurring that they think should be managed by the MOC process.

Whilst it is expected that companies will have an MOC process in place already, this PSF focusses on recognising change that needs to be subject to MOC. Sometimes changes that might appear quite small can have a large impact on process safety, either by introducing new hazards or degrading existing barriers. It is good for teams to discuss changes at their location and to involve others to help identify whether management of change is needed.

Change, which can be permanent, temporary or emergency, is not limited to hardware modifications and can typically include:

- Operating or maintenance procedure revisions
- Changes to operating limits
- Changes to process operating conditions (e.g., temperature, pressure, flowrate, composition)
- Equipment changes (non like-for-like replacement)
- Change of chemicals or materials

Teams can review their local MOC process for guidance on what triggers their MOC process and discuss examples at their location. It is recognised that there may be pressure to “get work done” but experience has shown that change must be systematically managed in all situations to avoid unwanted incidents.

It is also important to remain alert to change that occurs slowly, perhaps over many years. This “creeping change” (e.g., gradual change in process fluid composition or gradual reduction in a team’s experience level) also requires evaluation. Taking time out to discuss creeping change or perhaps the impact of multiple small changes on the same system, can be useful in avoiding incidents and teams can seek advice or alert supervision if they have concerns.

Tips for Managers:

Verify that systematic identification and management of change processes are in place and working effectively.

Ensure that workforce personnel and management are trained to recognize change.

Additional guidance:

Energy Institute, CCPS, OSHA, Process Safety Management Systems

Center for Chemical Process Safety Beacon (July 2017):

[Management of Change](#)

Center for Chemical Process Safety Beacon (September 2016): [Can you recognize a change?](#)

Center for Chemical Process Safety Beacon (October 2012): [Manage Temporary Changes!](#)

US Chemical Safety Board: [Fire from ice](#)

US Chemical Safety Board: [Blocked in](#)

US Chemical Safety Board: [“CSB Safety Bulletin Says “Managing Change” Is Essential to Safe Chemical Process Operations”](#).

August 28, 2001.