Management of Change

What is Management of Change (MOC)?

Management of Change, or MOC, is a best practice used to ensure that safety, health and environmental risks are controlled when a company makes changes in their facilities, documentation, personnel, or operations.

Process Safety Management at the Tenaska Ferndale Cogeneration Plant.

When decisions and changes are made rapidly, safety and health risks can increase resulting in disasters such as explosions at the oil refinery and detergent plant described in the U.S. Chemical Safety and Hazard Investigation Board's 2001 "Management of Change" safety bulletin. There are many other notable examples of how even simple changes at a worksite have led to tragedy.

At worksites where highly hazardous chemicals are used, the Process Safety Management (PSM) rules apply and proper application of Management of Change is not just a best practice, but is actually a requirement. In these cases, a MOC program is used to ensure all changes to a process are properly reviewed and any hazards introduced by the change are identified, analyzed, and controlled before resuming operation.

MOC often seems deceptively simple in concept, but can be very effective in the prevention of accidents and can be used as a best practice at worksites where the Process Safety Management rule doesn't apply.

When is MOC used?

Generally, a business need or opportunity becomes a project or business solution and requires changes in the workplace that can affect processes, systems, people, or organizational structure. Think about whether implementing this change improves your safety program and makes good business sense.

One obvious benefit Management of Change gives is avoiding the consequences of unforeseen safety and health hazards through planning and coordinating the implementation of change in your facility. This is why Management of Change is required in the PSM rules when highly hazardous chemicals are used.

Which Washington Voluntary Protection Program (VPP) sites use MOC?

Dow Chemical, Elma
Honeywell Aerospace, Redmond
Honeywell, Spokane
Monsanto Company, Othello
Nucor Steel, Seattle
Solvay Chemicals, Longview
Tenaska Cogeneration Station, Ferndale
Trident Seafoods, Anacortes
Weyerhaeuser Company, Longview

What are the benefits of MOC?

- It minimizes unplanned adverse impacts on system integrity, security, stability, and reliability for the business process being altered or added.
- It maximizes the productivity and efficiency of staff planning, coordinating, and implementing the changes.
- It provides a stable production environment.
- It ensures the proper level of technical completeness, accuracy of modifications, and testing of systems before implementation.
- It provides an appropriate level of management approval and involvement.

How do you effectively design and implement MOC?

Managing change begins with a discussion of the types of changes being considered that could affect workplace safety and health, including effects that may not be obvious.

Procedures for managing these changes should be written and regularly reviewed to reduce the risk associated with any changes.

Changes being considered must be thoroughly evaluated for how they affect employee safety and health. Sometimes there is a domino effect, where one change leads to more changes, and you will need to determine if the changes being considered prompt additional changes to operating procedures.

Your MOC program must specify what types of changes are to be managed, for example, physical alterations to equipment or new operating procedures.

A proper MOC system also requires that any change be evaluated before implementation. The level of evaluation can depend on the degree of change and how critical it is to the safety of your operations.

Employees, as well as maintenance and contract workers whose work will be affected by the change, must be informed and trained on the new equipment, process or whatever the change includes. This must be done before startup of the process or startup of the affected part of the process.

Managing change also means updating any safety information, operating procedures or practices related to the new procedures.

Elements of an effective MOC Program:

- Procedures that consider:
  - The technical basis for the proposed change.
  - Impact of the change on employee safety and health.
  - Modifications to operating procedures.
  - Time needed for the change.
  - Authorization required for the proposed change.
- Steps to identify hazards before the changes are made.
- Methods to screen and classify changes.
- Keys to identifying hazards in changes.
- Methods for documenting MOC reviews.
- Procedures to make approvals and authorizations workable.
- Plans to inform and train personnel about the changes.
- Methods for updating Process Safety Information, procedures and other Process Safety Management information.
- Steps for effective implementation.
- Procedures for reviewing and revising any existing MOC Program.

Best Practices in MOC

1. Compile safety information on the products, equipment, materials or processes that are changing and write policies and procedures to incorporate the new information. Be sure to include information on how to investigate accidents, audit compliance with safety procedures and plan for emergency responses.
2. Establish a way to gather employee input on the changes, such as interviews, group discussions or surveys. Incorporate employee comments and suggestions into your draft policy and procedures.
3. Write instructions for all employees on every process in which changes are involved. The procedures must be clear, include steps for performing every operation, cover safety information, state what to do in the case of an emergency and be readily available to the employees performing the procedures.
4. Train employees on the changes. Emphasize any safety and health hazards and what to do in the case of an emergency. The training must take place before an employee is allowed to operate the equipment or perform the job that the changes were related to.
5. Establish written procedures for what you will do the next time you have a change in safety management.

The Voluntary Protection Program Participant's Association (VPPPA) has compiled a directory of best practices. The directory can be obtained through the VPPPA website at www.VPPPA.org under news and publications.