

## Management of Change System Guidelines

Ref: Guidelines for Management of Change for Process Safety; AIChE/CCPS, 2008; Wiley Interscience

### Maintain a Dependable MOC Practice

#### Assurance of Consistent Implementation

- 1 Establish and implement written procedures to manage changes (except for RIKs).
- 2 Consider assigning a job function as the "owner" of the MOC system to monitor MOC effectiveness on a routine basis.
- 3 Define the technical scope of the MOC system so that (1) types of changes to be managed are certain and (2) sources of changes are monitored.
- 4 Provide awareness training and refresher training on the MOC system to all employees and contractors.

#### Assurance of Competent Personnel Involvement

- 5 Define the MOC roles and responsibilities of various types of facility personnel.
- 6 MOC reviews should be done by qualified personnel. Specify necessary reviewer qualifications.
- 7 Provide detailed training to all affected employees and contractors who are assigned specific roles within the MOC system.

#### Assurance that MOC Practices Remain Effective

- 8 Keep a running summary log of all MOC reviews, including completion of the entries on an MOC form, to aid in management of the MOC process.
- 9 Establish and collect data on MOC performance indicators.
- 10 Provide input to internal audits of MOC practices based upon learnings from the MOC performance indicators.

### Identify Potential Change Situations

#### Assurance that All Sources of Change Are Managed

- 11 Develop a list of areas, departments, and activities to which the MOC system applies.
- 12 Develop specific examples of "changes" and "replacements-in-kind" for each category. Use in employee awareness training in order to minimize the chance that the MOC system is inadvertently bypassed.

### Evaluate Possible Impacts

#### Assurance of Appropriate Input Information to Manage Changes

- 13 Consider all the types of information necessary to properly evaluate changes within the scope of the MOC system. Develop checklists of appropriate sources of input information for reviewers to use.
- 14 The MOC system should include the use of a written MOC review form and should ensure that the following considerations are addressed prior to any change:
  1. The technical basis for the change
  2. The impact of the change upon safety, health, and the environment
  3. Changes required to any procedures
  4. Time frame of the change
  5. Authorization requirements for the change.
- 15 Use appropriate analytical techniques, including qualitative hazard evaluation methods, to review the potential safety and health impacts of a change.
- 16 Each review should include someone qualified in hazard analysis.
- 17 Reviewers should have access to and be trained in the use of facility hazard/risk tolerance criteria.

### Decide on Whether to Allow Change

#### Assurance that Changes Are Properly Authorized

- 18 Each MOC should be authorized by a designated approved person. Sometimes the "MOC approver" function is satisfied by the MOC reviewers; sometimes the approver is independent of the MOC reviewers.
- 19 Develop a list of responsibilities for MOC authorizers.
- 20 MOC procedure should address the options that reviewers have in making decisions regarding MOCs.

### Follow Through on Results of Change

#### Assurance that Records Are Updated

- 21 All process safety information should be updated prior to start-up of the change. If this isn't possible, use "temporary" records (e.g., red-lined P&IDs, procedures). Track incomplete items regularly until they are brought up to date, reviewed, and approved. Specify a maximum length of time (e.g., 90 days) that should not be exceeded without information being formally updated.

#### Assurance that Changes Are Properly Communicated to Personnel

- 22 Employees involved in operating a process and maintenance and contract employees whose job tasks will be affected by a change in the process shall be informed of, and trained on, the change prior to start-up of the process or affected part of the process.
- 23 Document that the training was completed on the change and that the employees understood the training.

#### Assurance that Risk Control Measures Are Enacted

- 24 Create a system to address MOC review action items. Document completion of the action items. The facility should address which should be completed before the change is implemented and which can be completed following the change.

#### Assurance that MOC Records Are Maintained

- 25 MOC review packages should be prepared, containing materials and information used by reviewers and authorizers to perform the review. Review packages should be retained for a specified period (e.g., 1 to 5 years) to support other process safety work activities.