

# **Management of Change**



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# Chapter 1

## Overview

## **Topics:**

- Overview of the Management of Change (MoC) Module
- Access the MoC Overview Page
- MoC Workflow

## **Overview of the Management of Change (MoC) Module**

Any organization in today's business environment must be ready to undergo changes almost constantly to have a competitive advantage. A change, when implemented after careful planning and impact analysis, can lead to improved business and safety performance.

Change Management is used extensively in industries to ensure that when changes are implemented, a thorough risk assessment has been done and all aspects of the change have been considered prior to implementation of the change.

#### **More Details**

The APM Management of Change (MOC) module follows a systematic approach to delivering a change, taking into consideration all aspects of operations which will or could be impacted because of the change. Using MOC, changes are undertaken as Change Projects. In the Change Project, changes are formally introduced, approved, and implemented as tasks. The Management of Change module provides a flexible solution for creating and managing change projects, communicating changes to team members, and enforcing an approval system to provide accountability for the change. With MOC, you are able to comply with change management requirements by relating records from other APM entities to ensure that all impacted areas of the organization are recorded as changed elements in the Change Project. This in turn provides your organization with a greater degree of auditability, which is essential in industries that require Management of Change as a regulatory compliance requirement.

## Access the MoC Overview Page

#### Procedure

In the module navigation menu, select Integrity > Management of Change.

The **MOC Overview** page appears. By default, on the **MOC Overview** page, the hierarchy level is set to Home and the information (i.e., the list of records, the graph, and the calendar) related to all Hierarchy Levels, including Change Projects and tasks that are not associated with any asset, appears. You can filter

the information that appears on the page, based on a specific asset by selecting  $\mathcal{V}$  in the upper-left corner of the page. When you select an asset, the information related to the selected asset and all assets within the hierarchy level appears.

The following tabs appear on the page:

- **Change Projects:** Contains a list of Change Projects. The following columns of information appear in the section:
  - **Project ID:** Contains the value from the Change Project ID field of the Change Project. You can select the link in the **Project ID** column to access the Change Project.
  - **Description:** Contains the value that you entered in Description field to describe the Change Project.
  - **State:** Contains the current state of the Change Project.
  - **Project Type:** Contains the value that you entered in Change Type field to identify the type of Change Project.
- Tasks: Contains a list of tasks. The following columns of information appear in the section:
  - **Task ID:** Contains the value that identifies the task. You can select the link in the **Task ID** column to access the task in the Record Explorer.

- **Description:** Contains the value that you entered in the Task Description field to describe the task.
- State: Contains the current state of the Operations Task record.
- **Assigned To:** Contains the value in the Task Assigned To field of the Operations Task record.
- **Next Date:** Contains the value in the Next Date field of the Operations Task record.

| MOC Overview X                    | ■ へ ? 竣   |
|-----------------------------------|---|
| ☑ MOC Overview Asset: Home        |   |
| 7<br>Change Projects              | 3<br>Tasks                                      |
| MOC OVERVIEW GRAPH                | MOC CALENDAR                                    |
| Permanent<br>Temporary<br>Expired | 3pm<br>4pm<br>5pm                               |
|                                   | 6pm v<br>MI_PROPOSED MI_SCHEDULED MI_COMLETED v |

The following graphs appear on the page:

- **MOC Overview Graph:** Contains a bar graph that displays the number of Change Projects in the selected hierarchy level, for the last five years including the current year. The x-axis represents years. The y-axis represents the number of Change Projects in each of the following categories:
  - Permanent: Represents the number of permanent Change Projects.
  - Temporary: Represents the number of temporary Change Projects whose Change Valid Until values are greater than the current date.
  - Expired: Represents the number of temporary Change Projects whose Change Valid Until values are lesser than the current date and the state of the project is not Finalized.

On the graph, you can pause on a section of the bar to view the number of projects for a specific

change type in the specific year. In the upper-right corner of the graph, you can select  $\square$  to modify the appearance of the graph using standard graph features.

MOC Calendar: Contains a calendar that displays the tasks available for the selected hierarchy. The
color of the horizontal bars representing the task on the calendar indicates the state of the task. The
tasks are organized on the calendar based on the value in the Next Date field in the Operations Task
records.

The following features are available in the calendar:

- You can select the horizontal bar for a task to access it in the Record Explorer.
- Next to the date, you can select < or > to view the schedule for other dates on the calendar. In the upper-right corner of the calendar, you can select the **Today** button to navigate to the current date.
- Below the calendar, the list of states assigned to the tasks and the color code used for the corresponding states appear. You can select the state to view the tasks that are in the selected state for the specified date.

- In the upper-right corner of the calendar, you can select  $\Box$  to view the calendar on a new page and access the following features:
  - In the upper-right corner of the page, you can select one of following buttons:
    - **Month:** The calendar for the current month appears, displaying tasks that are due for each day in the current month.
    - **Week:** The calendar for the current week appears, displaying tasks that are due for each day in the current week.
    - **Day:** The calendar for the current date appears, displaying tasks due for the day. By default, this option is selected.
  - In the left pane, the calendar for the current month appears. Above the calendar in the left

pane, next to the month, you can select  $\langle$  or  $\rangle$  to view the schedule for other months on the calendar.

## **MoC Workflow**

This workflow provides the basic, high-level steps for using this module. The steps and links in this workflow do not necessarily reference every possible procedure.

- 1. Create a Change Project, which stores the details of the change that you want to manage, including the type of change.
- 2. Create the Change Project team that will manage the project.
- 3. Add the Checklists that can identify potential areas of impact of the changes.
- 4. Respond to Questions in each Checklist. Based on your response to the Questions, Exceptions are automatically created.
- 5. Manage the Exceptions.
- 6. Create tasks for Exceptions and assign each task to a user.
- 7. As needed, create recommendations for Exceptions.
- 8. Use state management for tasks to record the progress of tasks.
- 9. Analyze the Change Project Summary to verify the percentage of Exceptions that are closed and the percentage of tasks that are in the Completed state.
- 10. Use state management in Change Projects to finalize the project.

# Chapter

2

## Workflows

**Topics:** 

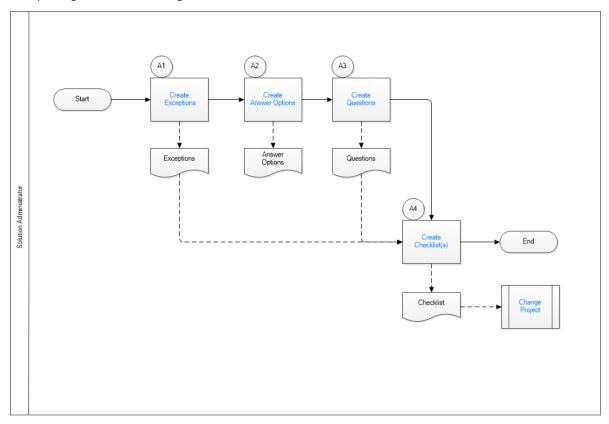
- MOC Administration
- MOC Change Project

## **MOC Administration**

#### **Management of Change: MoC Administration**

This workflow describes the process for creating Exceptions, Answer Options, Questions, and Checklists that can be used in a Change Project.

In the following workflow diagram, the blue text in a shape indicates that a corresponding description has been provided in the sections that follow the diagram. For more information, refer to the topic Interpreting the Workflow Diagrams.



- 1. Create Exceptions on page 6
- 2. Create Answer Options on page 7
- 3. Create Questions on page 7
- 4. Create Checklists on page 7
- 5. Change Project on page 7

## **Create Exceptions**

Persona: Solution Administrator

Create the Exceptions that represent the action items that will be created automatically when you select Answer Options in a Checklist in a Change Project.

## **Create Answer Options**

Persona: Solution Administrator

Create additional Answer Options that you want to use when you create Questions.

## **Create Questions**

Persona: Solution Administrator

Create the Questions that you can want to associate with Checklists. You must associate each Question with a minimum of two Answer Options. As needed, you can associate an Answer Option with an Exception.

### **Create Checklists**

Persona: Solution Administrator

Create Checklists by adding Questions as Checklist Items to each Checklist.

## **Change Project**

Persona: Analyst

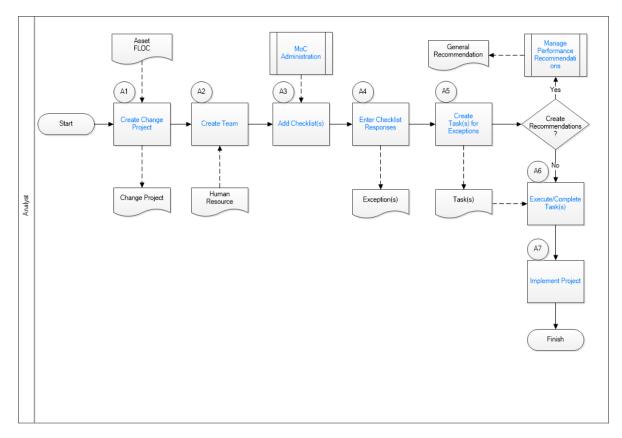
Go to the Change Project workflow.

## **MOC Change Project**

## **Management of Change: MoC Change Project**

This workflow describes the process for creating Change Projects, adding Checklists, creating and managing Exceptions and Tasks, executing Tasks, and implementing the project.

In the following workflow diagram, the blue text in a shape indicates that a corresponding description has been provided in the sections that follow the diagram. For more information, refer to the topic Interpreting the Workflow Diagrams.



- 1. Create Change Project on page 8
- 2. Create Team on page 8
- 3. Add Checklists on page 9
- 4. Enter Checklist Responses on page 9
- 5. Create Tasks for Exceptions on page 9
- 6. Manage Performance Recommendations on page 9
- 7. Execute or Complete Tasks on page 9
- 8. Implement Project on page 9
- 9. MoC Administration on page 8

## **Create Change Project**

#### Persona: Analyst

Create a Change Project to store the details of the Change Project, such as the change type, duration, purpose, scope, and the owner of the project. If the project is a temporary project, you must specify the date until which the change is valid.

## **Create Team**

Persona: Analyst

Create a multi-disciplinary team that will perform various tasks in the Change Project.

## **MoC Administration**

Persona: Solution Administrator

Go to the MoC Administration workflow.

## **Add Checklists**

#### Persona: Analyst

Based on the type of project and the project scope, add one or more Checklists to the Change Project. You can select from the Checklists that you created in the MoC Administration workflow. Copies of the selected Checklists are created and associated with the Change Project.

### **Enter Checklist Responses**

#### Persona: Analyst

For each Checklist that you added to the Change Project, respond to the Questions in the Checklist. If the Answer Option that you selected is configured to create an Exception, an Exception is automatically created and associated with the Change Project.

## **Create Tasks for Exceptions**

Persona: Analyst

For each Exception created for the Change Project, create one or more Tasks.

#### **Manage Performance Recommendations**

Persona: Analyst

As needed, create General Recommendations for Exceptions to provide additional suggestions for effectively managing the change.

Go to the Action Management: Manage Recommended Actions Workflow.

### **Implement Project**

#### Persona: Analyst

Analyze the summary of the Change Project to verify the percentage of Exceptions that are closed and the percentage of Tasks that are in the Completed state. When all Exceptions are closed, use state management to finalize the project.

#### **Execute or Complete Tasks**

Persona: Analyst

Record the progress of Tasks using the state management. For all completed Tasks, change the state of the Task to Complete. When all Tasks associated with an Exception are completed, modify the status of the Exception to Complete.

# Chapter

## **Change Projects**

#### **Topics:**

- About Change Projects
- Access the Project Summary
   Workspace
- Access a Change Project
- Access the Team Members Section
- Access the Reference Documents Section
- Access a Recommended Actions Pane
- Create a Change Project
- Create a Recommendation
- Change the State of a Change Project
- Access a List of Assets associated with a Change Project
- Link an Asset with a Change Project
- Unlink an Asset from the Change Project
- Delete a Change Project

## **About Change Projects**

Change Projects organize the proposed changes in an organization as a set of interrelated tasks that must be performed over a fixed period with necessary approvals. This ensures that the change process is initiated, implemented, and delivered effectively to all stakeholders.

A Change Project in MOC stores all the details about a change. When you create a Change Project in MOC, you must provide details about the change. This includes details such as the scope of the project, the purpose of the project, the asset(s) that will be impacted by the change, and the type of change that is being implemented. You can also add team members who will approve and manage tasks proposed in the Change Project. You can associate related files as Reference Documents. A reference document can be any document that is relevant to implementing the change (e.g., a drawing or an equipment detail document).

After you define the Change Project, you can associate the Change Project to the following records:

- Checklists
- Exceptions

#### **Change Type**

Change project types are used to describe the type of change which is being undertaken. In MOC, a Change Project can be of one of the following four types:

- **Temporary:** Indicates that the change is planned for a limited duration.
- **Permanent:** Indicates that the change is a major change that will remain unchanged for a longer duration.
- **Minor Instrument Change:** Indicates that the change includes minor modification to the process or equipment and does not significantly affect the workflow in the organization.
- **Personnel:** Indicates a change in the organizational structure, change in number of employees, change in the contractor for a site, or development of a new role in the organization.

**Note:** The change types described in the above list are available in APM by default. As needed, you can add or remove change types by modifying the MI\_Change\_Project\_Type System Code Table.

Based on the type of change, you can configure Checklists and use them to drive the efforts towards the implementation of change.

## Access the Project Summary Workspace

#### Procedure

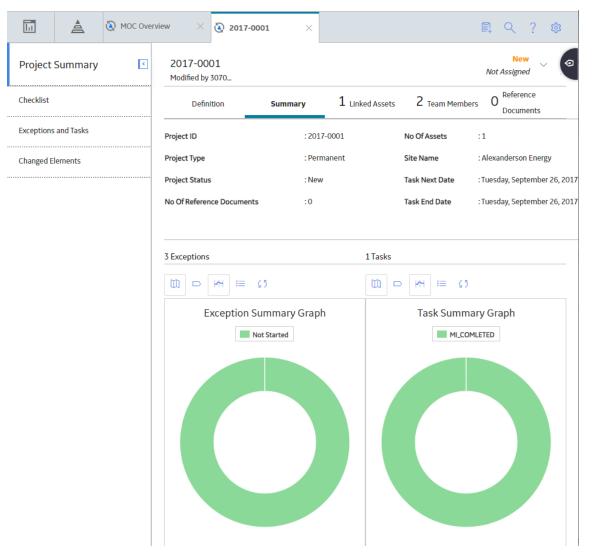
- 1. Access the MOC Overview page.
- 2. Select the Change Projects tab.

A list of all Change Projects that belong to the site for which you have access appears.

| MOC Overview                          | ×                            |                   |       |              | ? | Ŕ |
|---------------------------------------|------------------------------|-------------------|-------|--------------|---|---|
| MOC Overview Asset: Home              |                              |                   |       |              |   |   |
| <b>7</b><br>Change Projects           |                              | <b>3</b><br>Tasks |       |              |   |   |
| + 68                                  |                              |                   |       |              |   |   |
| PROJECT ID                            | DESCRIPTION                  |                   | STATE | PROJECT TYPE |   |   |
| 2017-0001                             | Update Proof Test Frequenc   | у                 | New   | Permanent    |   |   |
| AX34                                  |                              |                   | New   |              |   |   |
| DEF Test                              |                              |                   | New   | Permanent    |   |   |
| E0012A-097 MOC for Operating Pressure |                              |                   | New   | Temporary    |   |   |
| Engineering metallurgical upgrade     | Metallurgical Assessment to  | o improve resista | New   | Permanent    |   |   |
| Heat Exchanger Metallurgical upgrade  | Upgrade HE S&T from CS to SS |                   | New   | Permanent    |   |   |
| Redesign pump 101                     |                              |                   | New   | Permanent    |   |   |

3. In the **Project ID** column, select the link for the Change Project for which you want to view the summary.

The **Project Summary** workspace appears, displaying the **Summary** section.



The following tabs appear in the workspace:

- **Definition**: Contains the datasheet for the selected Change Project.
- **Summary**: Contains a summary of the Exceptions and Tasks associated with the Change Project. This tab is selected by default. The following information appears in this section:
  - Project ID: Contains the value in the Change Project ID field of the Change Project.
  - Project Type: Contains the value in the Change Type field of the Change Project.
  - Project Status: Contains the current state of the Change Project.
  - No Of Reference Documents: Contains a value indicating the number of reference documents associated with the Change Project.
  - Number Of Assets: Contains a value indicating the number of assets associated with the Change Project.
  - Site Name: Contains a value indicating the Site to which the Change Project belongs.
  - Task Next Date: Contains the date that represents the earliest of all the dates in the Next Date field among all the Tasks associated with the Exceptions of the Change Project.
  - Task End Date: Contains the date that represents the latest of all the dates in the Last Date field among all the Tasks associated with the Exceptions of the Change Project.

- Exceptions: Contains a value indicating the total number of Exceptions associated with the Change Project.
- Tasks: Contains a value indicating the total number of Tasks associated with the Exceptions in the Change Project.
- Exception Summary Graph: Contains a doughnut graph that shows the percentages of Exceptions in each of the following statuses:
  - Not Started
  - In Progress
  - Complete

You can pause on or select each section of the graph to view the number of Exceptions in each status.

Task Summary Graph: Contains a doughnut graph that shows the percentages of tasks in each state defined for the Operations Task family:

You can pause on or select each section of the graph to view the number of tasks in each state.

- Linked Assets: Contains a list of Assets that are associated with the Change Project.
- **Team Members**: Contains a list of team members who are associated with the Change Project.
- **Reference Documents**: Contains a list of Reference Documents that are associated with the Change Project.

The following tabs appear in the left pane:

- Checklists: Contains the list of Checklists that are associated with the Change Project.
- **Exceptions and Tasks**: Contains the list of Exceptions created for the Change Project and the list of Tasks associated with each Exception.
- **Changed Elements**: Contains the list of records with which the Change Project is associated.

Note: In the upper-right corner of the workspace, you can select

## **Access a Change Project**

#### Procedure

- 1. Access the **MOC Overview** page.
- 2. Select the Change Projects tab.

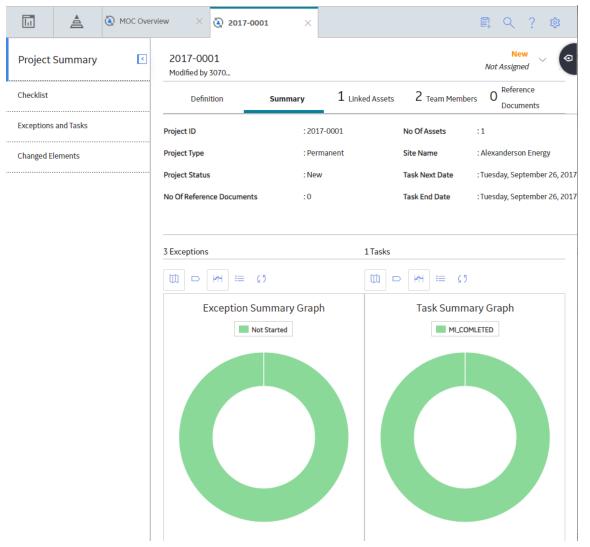
A list of all Change Projects available in the database appears. The following columns of information appear in the section:

- **Project ID**: Contains the value from the Change Project ID field of the Change Project.
- **Description**: Contains the value that you entered in Description field to describe the Change Project.
- **State**: Contains the current state of the Change Project.
- **Project Type**: Contains the value that you entered in Change Type field to identify the type of Change Project.

| MOC Overview                          | ×                            |                   |       | Ē.           | Q | ? | 8 |
|---------------------------------------|------------------------------|-------------------|-------|--------------|---|---|---|
| ☑ MOC Overview<br>Asset: Home         |                              |                   |       |              |   |   |   |
| <b>7</b><br>Change Projects           |                              | <b>3</b><br>Tasks |       |              |   |   |   |
| + 66                                  |                              |                   |       |              |   |   |   |
| PROJECT ID                            | DESCRIPTION                  |                   | STATE | PROJECT TYPE |   |   |   |
| 2017-0001                             | Update Proof Test Frequency  |                   | New   | Permanent    |   |   |   |
| AX34                                  |                              |                   | New   |              |   |   |   |
| DEF Test                              |                              |                   | New   | Permanent    |   |   |   |
| E0012A-097 MOC for Operating Pressure |                              |                   | New   | Temporary    |   |   |   |
| Engineering metallurgical upgrade     | Metallurgical Assessment to  | improve resista   | New   | Permanent    |   |   |   |
| Heat Exchanger Metallurgical upgrade  | Upgrade HE S&T from CS to SS |                   | New   | Permanent    |   |   |   |
| Redesign pump 101                     |                              |                   | New   | Permanent    |   |   |   |

3. In the **Project ID** column, select the link for the Change Project that you want to access.

The **Project Summary** workspace of the Change Project appears.



4. Select the **Definition** tab.

The **Definition** section appears, displaying the details of the Change Project.

**Note:** As needed, in the **Definition** section, you can modify values in the available fields, and then select 🖹 to save your changes.

|                      | rview 🛛 🗙 Engineepgrade 🛛 🗡            | 目へ?命  |
|----------------------|--|---|
| Project Summary      | Engineer<br>Modified by 21             | New Vot Assigned                                      |
| Checklist            | Definition Summary 1                   | Linked Assets 2 Team Members 1 Reference<br>Documents |
| Exceptions and Tasks | Datasheet ID:<br>MI MOC Change Project | Site:<br>Alexan Power                                 |
| Changed Elements     | Definition                             |   |
|                      | Change Project ID                      | Description   |
|                      | Engineering metallurgical upgrade      | Metallurgical Assessment to improve resistan          |
|                      | Permanent V                            | CS Material Replacement for current Vessel b          |
|                      | Owner<br>Client                        | Purpose<br>Extend Asset Remaining Life                |
|                      | Change Duration                        | Change Valid Until                                    |
|                      | Permanent V                            |   |
|                      | Start Date                             |   |
|                      | 3/5/2019 11:41:18 PM                   | <b></b>   |

## **Access the Team Members Section**

#### Procedure

- 1. Access the Change Project whose Team Members you want to access.
- 2. Select the **Team Members** tab.

The Team Members section appears, displaying a list of Team Members in the Change Project.

**Tip:** For details about working with teams and the **Team Members** section, refer to the Teams section of the documentation.

| Π         | à           | ( MOC Ove | erview X               | 2017-0001                   | ×        |                 | [              | ₽ < ?                    | 錢 |
|-----------|-------------|-----------|------------------------|-----------------------------|----------|-----------------|----------------|--------------------------|---|
|           | Summary     | <         | 2017-00<br>Modified by |                             |          |                 |                | New<br>Not Assigned      | 0 |
| Checklist |             |           | Defin                  | ition                       | Summary  | 1 Linked Assets | 2 Team Members | 0 Reference<br>Documents |   |
| Exception | s and Tasks |           |                        |                             |          |                 |                | ĉô                       | 0 |
| Changed E | lements     |           |                        | Ahmad, A<br>azra.ahmad@     |          |                 |                |                          |   |
|           |             |           |                        | <b>Kumar, R</b> anjit.Kumar | r@ge.com |                 |                |                          |   |

## **Access the Reference Documents Section**

#### Procedure

- 1. Access the Change Project whose Reference Documents you want to access.
- 2. Select the Reference Documents tab.

The **Reference Documents** section appears, displaying a list of Reference Documents linked to the Change Project.

|            | à         | NOC Ove | rview X                 | Engineepgra     | ade $	imes$ |                 |        |              | Ē.     | Q               | ?      | 袋 |
|------------|-----------|---------|-------------------------|-----------------|-------------|-----------------|--------|--------------|--------|-----------------|--------|---|
| -          | Summary   | ₹       | Engineer<br>Modified by |                 |             |                 |        |              | Not A  | Nev<br>Assigne  | $\sim$ | 0 |
| Checklist  |           |         | Defin                   | nition Si       | ummary      | 1 Linked Assets | 2      | Team Members | 1      | Refere<br>Docum |        |   |
| Exceptions | and Tasks |         | < +                     | - <i>P</i> ôô   |             |                 |        |              | Ŕ      | Û               |        | J |
| Changed E  | lements   |         |                         | ID              | DESC        | RIPTION         | AST UP | LAST UPDATED | D DATE |                 |        |   |
|            |           |         |                         | Corrosion Photo |             | E               | Idess  | 8/7/2018     |        |                 |        |   |
|            |           |         |                         |                 |             |                 |        |              |        |                 |        |   |
|            |           |         |                         |                 |             |                 |        |              |        |                 |        |   |

**Tip:** For more information, refer to the Reference Documents section of the documentation.

## **Access a Recommended Actions Pane**

#### **About This Task**

The recommendations that appear on the **Recommended Actions** pane are filtered based on your selection.

- If you access the **Recommended Actions** pane via the **Project Summary** workspace, the list of recommendations linked to all the Exceptions in the Change Project appears.
- If you access the **Recommended Actions** pane by selecting an Exception in the Change Project, the list of recommendations linked with the selected Exception appears.

**Note:** You can modify a recommendation only if you access the recommendation by selecting the Exception with which it is linked. You cannot create or modify a recommendation from the **Project Summary** workspace of a Change Project.

#### Procedure

1. Access the **Project Summary** workspace for the Change Project whose recommendations you want to view.

-or-

Access the Exception whose recommendation you want to view.

2. In the upper-right corner of the page, select

The **Recommended Actions** pane appears, displaying a list of recommendations.

| 1 Rec | commended Actions  | Action Management | ¢‡. |
|-------|--|-------------------|-----|
| ðð    | $\nabla$   |                   |     |
|       | ommendation to add a Fla<br>ated by: Baseline Super User C | Propo             | sed |

3. In the list, select the recommendation whose details you want to view.

The datasheet for the selected recommendation appears.

| < Recommendation to add a Flame arresstor : 💠 |          |  |  |  |
|---|----------|--|--|--|
| Identification Linked Recommended Actions     |          |  |  |  |
|   |          |  |  |  |
| Recommendation                                | <b>^</b> |  |  |  |
| Datasheet ID:<br>General Recommer VA          |          |  |  |  |
| General Alert                                 |          |  |  |  |
| Recommendation ID<br>REC-13416                |          |  |  |  |
| Recommendation Headline                       |          |  |  |  |
| Recommendation to add a Flame arresstor       |          |  |  |  |
| Target Completion Date                        |          |  |  |  |
| 11/13/2019 15:44:46                           |          |  |  |  |
| Recommendation Description                    |          |  |  |  |
| Text area<br>لا                               |          |  |  |  |

**Tip:** For information about additional options available when working with recommendation records, refer to the Recommended Actions section of the documentation.

## **Create a Change Project**

#### Procedure

- 1. Access the **MOC Overview** page.
- 2. Select the **Change Projects** tab.

A list of Change Projects available in the database appears.

| MOC Overview                          | ×                            |                         |       | 眞 < ?        | Ę |
|---------------------------------------|------------------------------|-------------------------|-------|--------------|---|
| MOC Overview Asset: Home              |                              |                         |       |              |   |
| <b>7</b><br>Change Projects           |                              | 3<br>Tasks              |       |              |   |
| + 66                                  |                              |                         |       |              |   |
| PROJECT ID                            | DESCRIPTION                  |                         | STATE | PROJECT TYPE |   |
| 2017-0001                             | Update Proof Test Free       | quency                  | New   | Permanent    |   |
| AX34                                  |                              |                         | New   |              |   |
| DEF Test                              |                              |                         | New   | Permanent    |   |
| E0012A-097 MOC for Operating Pressure |                              |                         | New   | Temporary    |   |
| Engineering metallurgical upgrade     | Metallurgical Assessm        | nent to improve resista | New   | Permanent    |   |
| Heat Exchanger Metallurgical upgrade  | Upgrade HE S&T from CS to SS |                         | New   | Permanent    |   |
| Redesign pump 101                     |                              |                         | New   | Permanent    |   |

3. In the upper-left corner of the **Change Projects** section, select +.

The **Project Summary** workspace appears, displaying a blank datasheet for the Change Project.

| Heat Ex.             | upgrade X 🔇 Redesigump 101 X 🔇 Net     | w Charojects 🗙 👻 🖺 🔍 ? 🕸                          |
|----------------------|--|---|
| Project Summary      | New Ch                                 | 0   |
| Checklist            | Definition Summary O                   | inked Assets O Team Members O Reference Documents |
| Exceptions and Tasks | Datasheet ID:<br>MI MOC Change Project | ⊘ Stte:<br>Alexanrlines                           |
| Changed Elements     | Definition                             | I   |
|                      | Change Project ID                      | Description                                       |
|                      | Text input This field is required      | Text input  |
|                      | Change Type                            | Scope   |
|                      | Owner                                  | Purpose   |
|                      | Text input                             | Text input  |
|                      | Change Duration                        | Change Valld Until                                |
|                      | Start Date                             |   |
|                      | 11/8/2019 9:57:34 AM                   | <b>₩</b>  |

4. As needed, enter values in the available fields.

In the upper-right corner of the section, select <a>h</a>.
 The Change Project is created.

#### **Next Steps**

• Add Team Members to the Change Project.

## **Create a Recommendation**

#### Procedure

- 1. Access the Exception for which you want to create a recommendation.
- 2. In the upper-right corner of the page, select

The **Recommended Actions** pane appears, displaying a list of recommendations associated with the Exception.

| 1 Recommended Actions   | Action Management | ÷  |
|---|-------------------|----|
| 68 Y  |                   |    |
| <b>Recommendation to add a Fla</b><br>Updated by: Baseline Super User C | Propose           | ed |

3. In the upper-left corner of the pane, select +.

A blank datasheet for Recommendation appears.

| < New Recommendation: Draft                           |                            |   |  |  |  |  |  |
|---|----------------------------|---|--|--|--|--|--|
| Identification  | Linked Recommended Actions |   |  |  |  |  |  |
| Recommendation<br>Datasheet ID:<br>General Recommer V | Site:<br>Roanoke, VA       | • |  |  |  |  |  |
| General Alert Information Recommendation ID           |                            |   |  |  |  |  |  |
| REC-13421   |                            |   |  |  |  |  |  |
| Recommendation Headline                               |                            |   |  |  |  |  |  |
| Text input  |                            |   |  |  |  |  |  |
| This field is required                                |                            |   |  |  |  |  |  |
| Target Completion Date                                |                            |   |  |  |  |  |  |
|   | Ē                          |   |  |  |  |  |  |
| This field is required                                |                            |   |  |  |  |  |  |

- 4. As needed, enter values in the available field.
- 5. Select 🛅.

The recommendation is created.

**Tip:** For information about additional options available when working with the Recommendation records, refer to the Action Management section of the documentation.

#### Results

• A General Recommendation record is created and linked with the Exception.

## Change the State of a Change Project

#### **About This Task**

This topic describes how to change the state of a Change Project, while assigning the state of the project to the appropriate user.

**Important:** You can modify the state for a Change Project only if you are an administrator or a user who belongs to the State Configuration Role configured for that state.

#### Procedure

- 1. Access the Change Project for which you want to change the state.
- 2. In the upper-right corner of the workspace, select the button that indicates the current state of the Change Project. For example, if the current state of the Change Project is Proposed, select **Proposed**.

A menu appears, displaying the operation that you can perform to change the state of the project.

|                             | Not Assi | New v<br>gned |    |
|-----------------------------|----------|---------------|----|
| Propose                     |          |               |    |
| Manage State<br>Assignments | 2        | Dor           | 10 |

3. Select the necessary operation that will change the state of the project, and then select **Done**. For example, if you want to change the state of the project from Proposed to Approved, select **Approve**, and then select **Done**.

**Note:** You can view the states assigned to various users by selecting the **Manage State Assignments** link. If not already done, you can assign the next state of the Change Project to the appropriate user, and then select **Done**.

The state of the Change Project is changed.

## Access a List of Assets associated with a Change Project

#### Procedure

- 1. Access the Change Project for which you want to view the associated assets.
- 2. Select the Linked Assets tab.

The **Linked Assets** section appears, displaying the following columns of information for the list of assets associated with the Change Project.

- **Asset ID**: Contains a link which you can select to view the details of the Asset in the Record Manager. Based on the type of asset, the link to the Asset appears in the following format:
  - Functional Location: <Functional Location> ~ <Description>
  - Equipment: <Equipment Technical Number> ~ <Description> ~ <Equipment ID>
- **Asset Type**: Contains the value in the Description field of the Asset.
- **Functional Location**: Contains the value in the Functional Location field of the Equipment. This column is blank if the asset is a Functional Location.

| Π             | à        | 🔇 New Tab | ×                          | Engine    | epgrade $	imes$ |                        |                   | 昌 く ?                    | 錢   |
|---------------|----------|-----------|----------------------------|-----------|-----------------|------------------------|-------------------|--------------------------|-----|
| Project Su    |          | ٢         | Engineeri<br>Modified by 2 |           |                 |                        |                   | New<br>Not Assigned      |     |
| Checklist     |          |           | Definit                    | tion      | Summary         | <b>1</b> Linked Assets | 2 Team Members    | 1 Reference<br>Documents |     |
| Exceptions ar | nd Tasks |           | + 88                       |           |                 |                        |                   |                          |     |
| Changed Elen  | nents    |           |                            | ASSETID   |                 |                        |                   | ASSETTYPE                | FUN |
| onanged Lien  |          |           |                            | U1-PWR-TI | URB-1001 ~ 0000 | 00000453156808 ~ UI    | NIT 1 TURBINE ~ ~ | UNIT 1 TURBINE           | MR  |
|               |          |           |                            |           |                 |                        |                   |                          |     |
|               |          |           |                            |           |                 |                        |                   |                          |     |
|               |          |           |                            |           |                 |                        |                   |                          |     |
|               |          |           |                            |           |                 |                        |                   |                          |     |
|               |          |           |                            |           |                 |                        |                   |                          |     |

## Link an Asset with a Change Project

#### **About This Task**

In MOC, you can associate an asset where changes are being implemented to the Change Project that is used to manage those changes.

#### Procedure

- 1. Access the Linked Assets section for the Change Project with which you want to associate an asset.
- 2. In the upper-left corner of the section, select +.

The **Asset Finder** window appears. In the left pane of the window, a list of assets available in the database appears.

#### Asset Finder

| Hierarchy                         | Group |  |        |    |
|-----------------------------------|-------|--|--------|----|
|                                   | Q 🔺   |  |        |    |
| earch                             |       |  |        |    |
| + 🍸 Filter                        | - 1   |  |        |    |
| Home                              |       |  |        |    |
| MRD ~ ALEXANDERSON<br>CORPORATION | +     |  |        |    |
| CORFORATION                       |       |  |        |    |
|                                   |       |  |        |    |
|                                   |       |  |        |    |
|                                   |       |  |        |    |
|                                   |       |  |        |    |
|                                   |       |  |        |    |
|                                   |       |  |        |    |
|                                   |       |  |        |    |
|                                   | -     |  |        |    |
|                                   |       |  |        |    |
|                                   |       |  | Cancel | Do |

3. For each asset that you want to associate with the Change Project, navigate to the asset, and then select + next to the Asset ID.

**Note:** In the left pane of the **Asset Finder** window, you can search within **Hierarchy** or **Group** by selecting the corresponding tabs on the window.

In the right pane of the window, each selected asset appears.

4. Select Done.

Each selected asset is linked with the Change Project and the updated list of assets appears in the **Linked Assets** section.

**Note:** If you selected an asset group, then all the assets within the asset group are linked to the Change Project.

## Unlink an Asset from the Change Project

#### Procedure

- 1. Access the Linked Assets section for the Change Project from which you want to unlink an asset.
- 2. In the row for each asset that you want to unlink from the project, select the check box.
- 3. In the upper-right corner of the section, select  $\fbox{1}$ .

The **Delete Linked Assets** dialog box appears, asking you to confirm that you want to unlink each selected asset from the Change Project.

4. Select **OK**.

Each selected asset is unlinked from the Change Project and the updated list of assets appears in the **Linked Assets** section.

## **Delete a Change Project**

#### Procedure

- 1. Access the Change Project that you want to delete.
- 2. Select the **Definition** tab.

The **Definition** section appears, displaying the datasheet for the Change Project.

3. In the upper-right corner of the datasheet, select 🖁 , and then select **Delete**.

The **Confirm Delete** dialog box appears, asking you to confirm that you want to delete the Change Project.

**Note:** When you delete a Change Project, relationships with the associated Checklists and Exceptions are removed.

4. Select **Yes**.

The Change Project is deleted.

# Chapter



# Checklists

## **Topics:**

- About Checklists
- Access a Checklist
- Add a Checklist to a Change
   Project
- Respond to Questions in a
   Checklist
- Modify Response to a Question in a Checklist
- Delete a Checklist

## **About Checklists**

In the Application Settings for MOC, you can create Checklists for various purposes. For example, you can create a checklist for temporary changes, a checklist for permanent changes, a checklist for planning, a checklist for post implementation assessment, and so on. In the Change Project, based on your needs, you can add one or more of Checklists to the project. Checklists created in the Application Settings are used as a template when you add them to the Change Project.

When you add a Checklist to a Change Project, APM creates copies of the Checklist and the associated Questions and Answer Options. The Change Project is then associated with the copy of the Checklist. This ensures that any changes to the original Checklist do not affect the Change Project.

## **Access a Checklist**

#### **About This Task**

This topic describes how to access a Checklist that is associated with a Change Project. You can also access a Checklist that you created using the Application Settings for MOC.

#### Procedure

- 1. Access the Change Project with which the Checklist you want to access is associated.
- 2. In the left pane, select the **Checklists** tab.

A list of Checklists associated with the Change Project appears. The following columns of information appear in the workspace:

- Checklist ID: Contains the value in the Checklist ID field of the Checklist.
- **Description**: Contains the value in the Description field of the Checklist.
- **Answered**: Contains a value indicating the number of Questions that you have answered.
- **Unanswered**: Contains a value indicating the number of Questions that you have not answered.
- **Exceptions Triggered**: Contains a value indicating the number of Exceptions that have been created based on your responses in the Checklist.

| 🛄 🛓 🔇 мос с          | verview X 🔇 2017-0001 X  | 目 へ ? ゆ                                    |
|----------------------|--------------------------|--|
| Project Summary      | Checklists               |  |
| Checklist            | + 66                     | Ŵ  |
| Exceptions and Tasks | CHECKLIST ID DE          | SCRIPTIO ANSWERE UNANSWERE EXCEPTIONS TRIG |
|                      | Standard MOC Checklist 1 | 19 1 3                                     |
| Changed Elements     |                          |  |
|                      |                          |  |
|                      |                          |  |
|                      |                          |  |
|                      |                          |  |

3. In the row containing the Checklist that you want to access, in the **Checklist ID** column, select the link.

|                      | NOC Ove | rview $	imes$               | 2017-0001                  | ×           |                    |                        | Ē                | Q        | ?       | 礅  |
|----------------------|---------|-----------------------------|----------------------------|-------------|--------------------|------------------------|------------------|----------|---------|----|
| Project Summary      | K       | <<br>C<br>Checkli           |                            |             |                    |                        |                  |          |         | Â  |
| Checklist            |         | 20 Questions<br>19 Answered | s<br>    1 Unanswered      |             |                    |                        | 3 Exc            | eption T | riggere | ed |
| Exceptions and Tasks |         |                             | ange modify processes or   | r systems i | nvolving energy so | ources (e.g. gravitati | onal, hydraulic, | electric | al,     |    |
| Changed Elements     |         | steam) ?                    | <b>А/И</b>                 | (           | Yes                |                        |                  |          |         |    |
|                      |         | Will the cha                | ange generate a new type   | e or increa | se the volume of s | olid waste?            |                  |          |         |    |
|                      |         | No No                       | ○ N\A                      | (           | Yes                |                        |                  |          |         |    |
|                      |         | Will the cha                | ange necessitate revision  | of existing | g lockout tagout o | job safety analyses    | \$?              |          |         |    |
|                      |         | No No                       | ○ N\A                      | (           | Yes                |                        |                  |          |         |    |
|                      |         | Will ingress                | s or Egress be affected by | the chang   | e project?         |                        |                  |          |         |    |
|                      |         | No No                       | ○ N\A                      | (           | Yes                |                        |                  |          |         |    |
|                      |         | Will the cha                | ange add or modify a disc  | harge to a  | process sewer?     |                        |                  |          |         |    |
|                      |         | ● N\A                       | Yes                        | (           | No                 |                        |                  |          |         |    |

A list of Questions associated with the selected Checklist and the Answer Options associated with each Question appear.

## Add a Checklist to a Change Project

#### **Before You Begin**

• Create a Checklist

#### Procedure

- 1. Access the Change Project to which you want to add the Checklist.
- 2. In the left pane, select the **Checklists** tab.

A list of Checklists associated with the Change Project appears.

| MOC Over             | view × 🔕 2017-0001 ×     |                   | L Q ? 🕸          |
|----------------------|--------------------------|-------------------|------------------|
| Project Summary      | Checklists               |                   |                  |
| Checklist            | + 88                     |                   |                  |
| Exceptions and Tasks | CHECKLIST ID DESCRIPTIO  | ANSWERE UNANSWERE | EXCEPTIONS TRIG( |
|                      | Standard MOC Checklist 1 | 19 1              | 3                |
| Changed Elements     |                          |                   |                  |
|                      |                          |                   |                  |
|                      |                          |                   |                  |
|                      |                          |                   |                  |
|                      |                          |                   |                  |

3. In the upper-left corner of the Checklists workspace, select +

The **Add New Checklist** window appears, displaying the list of Checklists that you created using the MOC Application Settings.

| Add New Checklist      |             |   |
|------------------------|-------------|---|
| ôð                     |             |   |
| CHECKLIST ID           | CHANGE TYPE | ENTY_KEY                                      |
| Standard MOC Checklist |             | 5482289                                       |
| Test                   |             | 18981710                                      |
|                        |             |   |
|                        |             |   |
|                        |             |   |
|                        |             |   |
|                        |             |   |
|                        |             |   |
|                        |             |   |
|                        |             |   |
|                        |             |   |
|                        |             |   |
| 1 - 2 of 2 Results     |             | $\leftarrow \text{ Page 1 of 1 } \rightarrow$ |
|                        |             | Cancel OK                                     |

4. Select the Checklist that you want to add to the Change Project, and then select **OK**.

A copy of the selected Checklist is created and associated with the Change Project.

#### Results

- Copies of the Questions and Answer Options associated with the selected Checklist are created, and then associated with the copy of the Checklist.
- Copies of the Exceptions associated with Answer Options are also created.

#### **Next Steps**

• Respond to Questions in a Checklist

## **Respond to Questions in a Checklist**

#### Procedure

- 1. Access the Checklist for which you want to respond to Questions.
- 2. For each Question listed in the workspace, select an Answer Option.

The Answer Options are selected.

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|------------|-----------|-----------|---------------------------|--------------------------|---------------|-----------------|--------------------|-------------------|-----------|----------|---------|-----|
| Project S  | Summary   | ٢         | <<br>C<br>Checkli         |                          |               |                 |                    |                   |           |          |         |     |
| Checklist  |           |           | 20 Question<br>19 Answere | ıs<br>d   1 Unanswered   |               |                 |                    |                   | 3 Exce    | eption 1 | Frigger | ed  |
| Exceptions | and Tasks |           |                           | nange modify processe    | s or system   | ns involving en | ergy sources (e.g. | gravitational, hy | /draulic, | electri  | cal,    |     |
| Changed E  | lements   |           | steam) ?                  | <b>А/И</b>               |               | Yes             |                    |                   |           |          |         |     |
|            |           |           | Will the ch               | nange generate a new 1   | type or incr  | ease the volur  | ne of solid waste? | ,                 |           |          |         | . 1 |
|            |           |           | No No                     | a/n                      |               | Ves             |                    |                   |           |          |         |     |
|            |           |           | Will the ch               | nange necessitate revis  | sion of exist | ting lockout ta | gout or job safety | analyses?         |           |          |         |     |
|            |           |           | No No                     | A/N                      |               | Yes             |                    |                   |           |          |         |     |
|            |           |           | Will ingres               | ss or Egress be affected | d by the cha  | ange project?   |                    |                   |           |          |         |     |
|            |           |           | No No                     | A/N                      |               | Yes             |                    |                   |           |          |         |     |
|            |           |           | Will the ch               | nange add or modify a    | discharge t   | o a process se  | wer?               |                   |           |          |         |     |
|            |           |           | N\A                       | Ves                      |               | No              |                    |                   |           |          |         |     |

3. In the upper-right corner of the workspace, select 🖺.

Your response to each Question in the Checklist is saved.

#### Results

For each Question, if the selected Answer Option is associated with an Exception, then an association
is created between the Exception and the Change Project. The Exception appears in the Exceptions
and Tasks workspace.

### **Next Steps**

• Create Tasks for Exceptions

# Modify Response to a Question in a Checklist

### Procedure

- 1. Access the Checklist containing the Question for which you want to modify the response.
- 2. For the Question for which you want to modify the response, change your selection of Answer Option.

The **Change Answer** dialog box appears, indicating that changing the response will remove the association between the Change Project and the Exception created, if any, for the previous Answer Option.

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|-----------|-------------|---------|-----------------------------|------------------------|-------------|--------------------|---------------------|------------------|------------|---------|--------|----------|
| Project   | Summary     | ۲       | C<br>C                      |                        |             |                    |                     |                  |            |         |        | <b>A</b> |
| Checklist |             |         | 20 Questions<br>19 Answered | 1 Unanswered           |             |                    |                     |                  | 3 Except   | ion Tr  | iggere | d        |
| Exception | s and Tasks |         |                             | nge modify processes   | or system   | ns involving energ | gy sources (e.g. gr | avitational, hyd | raulic, el | ectrica | al,    |          |
| Changed E | lements     |         | steam) ?                    | ○ N\A                  |             | Ves                |                     |                  |            |         |        |          |
|           |             |         | Will the cha                | nge generate a new ty  | /pe or incr | ease the volume    | of solid waste?     |                  |            |         |        | - 1      |
|           |             |         | No No                       | ○ N\A                  |             | <b>Yes</b>         |                     |                  |            |         |        |          |
|           |             |         | Will the cha                | nge necessitate revisi | on of exist | ing lockout tago   | ut or job safety a  | nalyses?         |            |         |        |          |
|           |             |         | 💽 No                        | ○ N\A                  |             | Yes                |                     |                  |            |         |        |          |
|           |             |         | Will ingress                | or Egress be affected  | by the cha  | inge project?      |                     |                  |            |         |        |          |
|           |             |         | No No                       | ○ N\A                  |             | Yes                |                     |                  |            |         |        |          |
|           |             |         | Will the cha                | nge add or modify a d  | ischarge to | o a process sewe   | r?                  |                  |            |         |        |          |
|           |             |         | ● N\A                       | Yes                    |             | No                 |                     |                  |            |         |        |          |

3. Select **OK**, and then in the upper-right corner of the workspace, select 🛅.

The Checklist is saved.

### Results

- Any association between an Exception, created as a result of the previously selected Answer Option, and the Change Project is removed. The Exception and the associated Tasks do not appear in the Exceptions and Tasks workspace.
- If the Answer Option you selected in step 2 is associated with an Exception, then an association is created between the Exception and the Change Project. The Exception appears in the **Exceptions and Tasks** workspace.

### **Next Steps**

• If an Exception has been associated with the Change Project, then create Tasks for the Exception.

# **Delete a Checklist**

# Procedure

- 1. Access the Change Project with which the Checklist you want to delete is associated.
- 2. In the left pane, select the **Checklists** tab.

A list of Checklists associated with the Change Project appears.

|                      | rview × 🛛 2017-0001 ×                     | Q ? \$           |
|----------------------|---|------------------|
| Project Summary      | Checklists                                |                  |
| Checklist            | + 68                                      |                  |
| Exceptions and Tasks | CHECKLIST ID DESCRIPTIO ANSWERE UNANSWERE | EXCEPTIONS TRIG( |
|                      | Standard MOC Checklist 1 19 1             | 3                |
| Changed Elements     |   |                  |
|                      |   |                  |
|                      |   |                  |
|                      |   |                  |

3. In the row for each Checklist that you want to delete, select the check box.

In the upper-right corner of the workspace, the 🔟 button is enabled.

4. Select 🛄.

The **Delete Checklist** dialog box appears, asking you to confirm that you want to delete each selected Checklist.

**Note:** When you delete a Checklist, the Questions associated with the Checklist, the Answer Options, the Exceptions associated with the Answer Options, and the Tasks associated with the Exceptions are also deleted.

5. Select **OK**.

Each selected Checklist is deleted.

# Chapter 5

# **Exceptions and Tasks**

**Topics:** 

- About Exceptions and Tasks
- Access the List of Exceptions and Tasks Associated with the Change Project
- Access an Exception
- Access a Task
- Create a Task for an Exception
- Change the State of a Task
- Delete a Task
- Delete an Exception

# **About Exceptions and Tasks**

Exceptions and tasks ensure that the change management process is formally documented and the duties for review, approval, and implementation are assigned to appropriate personnel.

In the Application Settings for MOC, you must create Questions such that one Answer Option for each Question is associated with an Exception, and then associate the Questions with a Checklist.

For a Question in a Checklist that you added to the Change Project, when the selected Answer Option is associated with an Exception, an association is created between the Exception and the Change Project.

The Exception records associated with a Change Project are action items required for the project to be implemented successfully. After you respond to all Questions in all the Checklists in the Change Project, you can access the list of Exceptions created for the Change Project from the **Exceptions and Tasks** workspace of the Change Project. You can associate each Exception with tasks.

Tasks are used to break down Exceptions into smaller, more manageable pieces of work that consider all efforts required to complete the action item (i.e., the Exception). In APM, tasks are stored in the Operations Task records. Each task can be assigned to an appropriate team member. You can track the progress of task by managing the states of the task.

Based on the progress of the tasks associated with it, you can assign one of the following statuses to the Exceptions:

- Not Started: Indicates that the Exceptions and tasks have been created and requires further action.
- In Progress: Indicates that the assigned team members have started working on the tasks associated with the Exception.
- Complete: Indicates that all the tasks associated with the Exception have been successfully completed.

You can track the status of Exceptions in the Change Project to ensure that each task is successfully completed by the assigned team member(s). This makes the Change Project auditable.

### **Example: Exception and Task**

If the change being implemented results in revision of the operating or maintenance procedure, then you can create a task for updating the procedure and assign it to the appropriate team member. You can then create tasks for all involved team members to review the revised procedure. In this example, revision of the operating or maintenance procedure is an Exception.

# Access the List of Exceptions and Tasks Associated with the Change Project

### Procedure

- 1. Access the **Project Summary** workspace for the Change Project containing the Exception that you want to view.
- 2. In the left pane, select Exceptions and Tasks.

The Exceptions and Tasks workspace appears, displaying the following sections:

- **Exceptions**: Contains a list of Exceptions that are associated with the Change Project. For each Exception listed in this section, the following information appears:
  - <Exception ID>: The value in the Exception ID field of the Exception appears as a link, which you can select to access the selected Exception.
  - **Status:** The value in the Status field of the Exception.
  - **Reference Document:** The number of Reference Documents associated with the Exception.
  - **Source:** The value in the Question Text field of the Question, in response to which the Exceptions was created.

Above the **Exceptions** section, the number of Exceptions associated with the Change Project and the number of Exceptions in each Exception status appear.

• **Tasks**: Contains a list of tasks that are associated with the Exception that you select in the **Exceptions** section. For each task listed in this section, the following information appears:

- **<Task ID>:** The value in the Task ID field of the Operations Task record appears as a link, which you can select to access the selected Exception.
- **Assigned To:** The value in the Task Assigned To field of the Operations Task record.
- Start Date: The value in the Next Date field of the Operations Task record.
- **Interval:** The value in the Desired Interval field of the Operations Task record.

Above the **Tasks** section, the total number of tasks associated with the Exception and the number of tasks in each task state appear.

|                                |         | ( MOC Over | view × 🔇 2017-0001   | ×             |   | 昌 🤇 ? 🕸 |
|--------------------------------|---------|------------|--|---------------|---|---------|
| Project S                      | Summary | R          | Exceptions & Tasks   |               |   |         |
| Checklist                      |         |            | 3 Exceptions<br>3 Not Started  |               |   | 0 Tasks |
| Checklist 3 Exceptions 0 Tasks |         |            |  |               |   |         |
| Changed E                      | lements |            |  |               | + |         |
|                                |         |            | Status: Not Started<br>Reference Document: 0<br>Source: Does the change project aff  |               |   |         |
|                                |         |            | Controls parameters 1<br>Status: Not Started<br>Reference Document: 0<br>Source: Does the change project aff<br>or Maintenance procedures? | ect Operating |   |         |

# Access an Exception

#### Procedure

1. Access the list of Exceptions and Tasks associated with the Change Project.

2. In the **Exceptions** section, select the link for the Exception that you want to access.

The workspace for the selected Exception appears, displaying the following tabs:

• **Definition**: Contains the datasheet for the Exception.

**Note:** As needed, in the **Definition** section, you can modify values in the available fields, and then select to save your changes.

Reference Documents: Contains the list of reference documents associated with the Exception.
 Tip: For more information, refer to the Reference Documents section of the documentation.

Ш MOC Overview A 2017-0001 目 Q ? < Update the process safety information 1 **Project Summary** Created On Tuesday, September 26, 2017 Checklist Definition 0 Reference Documents **Exceptions and Tasks** Datasheet ID: Site: 0 MI MOC Exception  $\sim$ Alexan...Energy Changed Elements Details Exception Update the process safety information 1 Description Update the process safety information Exception Type Process Safety Information Status Not Started

### **Next Steps**

• Create a Task for an Exception

# **Access a Task**

# **About This Task**

This topic describes how to access a task via the **Exceptions and Tasks** workspace. You can also access a task from the **MOC Overview** page.

### Procedure

- 1. Access the list of Exceptions and Tasks associated with the Change Project.
- 2. In the **Exceptions** section, select the Exception whose task you want to access.

In the Tasks section, the Tasks associated with the selected Exception appear.

| Π         | à           | 🔺 Nav Config | g X 🔇 MOC Overview   | × 🔕 2017-        | 0001  | × | Ę | Q | ?      | 錢   |
|-----------|-------------|--------------|--|------------------|-------|---|---|---|--------|-----|
| Project S | Summary     | <            | Exceptions & Tasks   |                  |       |   |   |   |        | Í   |
| Checklist |             |              | 3 Exceptions<br>3 Not Started  |                  |       |   |   |   | 0 Tasl | s   |
| Exception | s and Tasks |              | Exceptions   |                  | Tasks |   |   |   |        | ı İ |
| Changed E | lements     |              |  |                  | +     |   |   |   | Ĩ      | H   |
|           |             |              | Update the process safety inform<br>Status: Not Started<br>Reference Document: 0<br>Source: Does the change project<br>safety information? |                  |       |   |   |   |        |     |
|           |             |              | Controls parameters 1<br>Status: Not Started<br>Reference Document: 0<br>Source: Does the change project<br>or Maintenance procedures?     | affect Operating |       |   |   |   |        |     |

3. In the **Tasks** section, select the link for the task that you want to access.

The datasheet for the selected task appears.

| Image: Moc Overview     X     X     Image: Constraint of the second se | ? 錄 |
|--|-----|
| Project Summary Controls parameters 1 / Update operational procedures<br>Created On Thursday, 14 November 2019   |     |
| Checklist Datasheet ID: Proposed Operations Task V Super User, Baseline V Stree: Roanoke, VA   | :   |
| Exceptions and Tasks Task ID Task Assigned To  |     |
| Changed Elements Update operational procedures VIPIN VIPIN   |     |
| 12/14/2019 05:26:25 iii 11/14/2019 05:26:25 iii  |     |
| Next Date         Task State           11/14/2019 05:26:25         III   |     |
| Last Date Desired Interval   |     |
| 11/14/2019 05:26:25 0<br>Max Interval Min Interval   |     |
| 1 0  |     |
| Task Type Desired Interval UOM   |     |
| Months (MON)   |     |
| Max Interval UOM Min Interval UOM Months Months  |     |

**Note:** As needed, you can modify values in the available fields, and then select 🗎 to save your changes.

# **Create a Task for an Exception**

## **Before You Begin**

• Respond to Questions in the Checklist so that Exceptions are created.

### Procedure

- 1. Access the list of Exceptions and Tasks associated with the Change Project.
- 2. In the **Exceptions** section, select the Exception for which you want to create the task.

In the **Tasks** section, a list of tasks associated with the selected Exception appears.

|                      | 🔺 Nav Config | × 🧿 MOC Overview   | × 🔇 2017            | -0001 | × | Ē | Q ? 🏟   |
|----------------------|--------------|--|---------------------|-------|---|---|---------|
| Project Summary      | <            | Exceptions & Tasks   |                     |       |   |   |         |
| Checklist            |              | 3 Exceptions<br>3 Not Started  |                     |       |   |   | 0 Tasks |
| Exceptions and Tasks |              | Exceptions   |                     | Tasks |   |   |         |
| Changed Elements     |              |  | Ē                   | +     |   |   | Î       |
|                      |              | Update the process safety info<br>Status: Not Started<br>Reference Document: 0<br>Source: Does the change project<br>safety information? |                     |       |   |   |         |
|                      |              | Controls parameters 1<br>Status: Not Started<br>Reference Document: 0<br>Source: Does the change project<br>or Maintenance procedures?   | ct affect Operating |       |   |   |         |

3. In the upper-left corner of the **Tasks** section, select +.

In the Exceptions and Tasks workspace, a new datasheet for Operations Task appears.

| 🔝 🛓 🔺 Nav Con        | fig $	imes$ 🐼 MOC Overview $	imes$ 🔯 2017-0001 $	imes$ 🗐 $	imes$ $	imes$ | es  |
|----------------------|--|---|
| Project Summary      | < Update the process safety information 1 / New Task                     | Value   |
| Checklist            | Datasheet ID:<br>Operations Task  V Site:<br>AlexanEnergy                | - topic/  |
| Exceptions and Tasks | Task ID Task Assigned To   |   |
| Changed Elements     | Text input V<br>This field is required                                   | et  |
|                      | Max Date Min Date  | ites 🐈 I<br>rmatio.                                   |
|                      | Next Date Task State 11/14/2019 6:38:38 AM                               | <ul> <li>Image: A market</li> <li>Scenario</li> </ul> |
|                      | Last Date Desired Interval   | P DITA P<br>P DITA X<br>P DITA H                      |
|                      | Max Interval Min Interval 0 0  | 2)  |
|                      | Task Type Desired Interval UOM V Months (MON) V                          |   |

- 4. As needed, enter values in the available fields.
- 5. In the upper-right corner of the datasheet, select 🛅.

The task is created.

### Results

• The task that you created is associated with the selected Exception.

### **Next Steps**

• Change the state of the Task

# Change the State of a Task

### **About This Task**

This topic describes how to change the state of a task, while assigning the state to the appropriate user.

**Important:** You can modify the state for a task only if you are an administrator or a user who belongs to the State Configuration Role configured for that state.

### Procedure

- 1. Access the task for which you want to change the state.
- 2. In the upper-right corner of the datasheet, select the button that indicates the current state of the task. For example, if the current state of the task is Proposed, select **Proposed**.

A menu appears, displaying the operation that you can perform to change the state of the task.

| Proposed<br>Soltis, Luke    | E (O) | Site:<br>AlexanEnergy |
|-----------------------------|-------|-----------------------|
| Reject                      |       |                       |
| Schedule                    |       |                       |
| Manage State<br>Assignments | Done  |                       |

3. Select the necessary operation that will change the state of the task, and then select **Done**. For example, if you want to change the state of the task from Proposed to Scheduled, select **Schedule**, and then select **Done**.

The state of the task is changed.

# **Delete a Task**

# Procedure

- 1. Access the Exception with which the task that you want to delete is associated.
- 2. In the Tasks section, select the task that you want to delete.
- 3. In the upper-right corner of the section, select  $\boxed{\blacksquare}$ .

The **Delete Task** dialog box appears, asking you to confirm that you want to delete the selected task.

4. Select **OK**.

The selected task is deleted and the updated list of tasks appears in the section.

# **Delete an Exception**

### Procedure

- 1. Access the list of Exceptions and Tasks associated with the Change Project.
- 2. In the **Exceptions and Tasks** workspace, in the **Exceptions** section, select the Exception that you want to delete.
- 3. In the upper-right corner of the section, select  $\fbox{10}$ .

The **Delete Exception** dialog box appears, asking you to confirm that you want to delete the selected Exception and the Tasks associated with it.

4. Select OK.

The association between the Change Project and the selected Exception is removed and the updated list of Exceptions appears in the section.

# Chapter 6

# **Changed Elements**

**Topics:** 

- About Changed Elements
- Access the List of Changed Elements Associated with a Change Project
- Add a Changed Element to the Change Project
- Remove a Changed Element from the Change Project

# **About Changed Elements**

When a change is being implemented, it directly or indirectly has an impact on other families in APM. In MOC, you can associate a Change Project with records from other families in APM that are possibly impacted by the change. Such records are called Changed Elements.

For example, when the change involves replacing the existing pressure relief devices that were identified as Independent Protection Layers, with a different manufacturer's device, the LOPA assessment with which the equipment is associated may be impacted. In this case, the affected LOPA record is a changed element and you can associate the LOPA record with the Change Project.

Changed elements help keep track of all affected processes and records in one place, which you can then analyze to assess the advantages and disadvantages of implementing the change. An approver can review the changed elements to understand the impact of the change and make decisions on whether to approve or request rework of the Change Project. Changed elements provide your organization with a means of associating impacted areas as changed elements, thus making MOC a fully auditable tool.

### Associating Records from APM Families as Changed Elements

By default, you can associate SIL Analysis, Hazards Analysis, and LOPA records as changed elements to a Change Project. If you want to add records from other families, you must modify the Change Project Has Element relationship family by adding the families, whose records you want to add as changed element, as Successors to the MI MOC Change Project family. For more information, refer to the Create a Relationship Definition section of the documentation.

# Access the List of Changed Elements Associated with a Change Project

# Procedure

- 1. Access the Change Project for which you want to view the associated changed elements.
- 2. In the left pane, select the **Changed Elements** tab.

The **Changed Elements** section appears, displaying the following columns of information for the list of changed elements associated with the Change Project.

- **Element ID**: Contains the identification of the changed element that is associated with the Change Project. You can select the link in the **Element ID** column to view details about the selected record in the Record Manager.
- Family: Contains the name of the family to which the changed element belongs.

| l.         | à        | ( MOC Ove | rview X | 2017-0001       | ×     |             | Ē,     | Q | ? | 鐐 |
|------------|----------|-----------|---------|-----------------|-------|-------------|--------|---|---|---|
|            | Summary  | R         | Changed | l Elements      |       |             |        |   |   |   |
| Checklist  |          |           | + 68    | >               |       |             |        |   |   | Î |
| Exceptions |          |           |         | ELEMENTID       |       | FAMILY      |        |   |   |   |
|            |          |           |         |                 |       |             |        |   |   |   |
|            |          |           |         | Steam System "B | " PHA | Hazards Ana | alysis |   |   |   |
| Changed I  | Elements |           |         | Steam System "B | " PHA | Hazards Ana | alysis |   |   |   |
| Changed I  | Elements |           |         | Steam System "B | " PHA | Hazards Ana | alysis |   |   |   |
| Changed I  | Elements |           |         | Steam System "B | " PHA | Hazards An  | alysis |   |   |   |
| Changed I  | Elements |           |         | Steam System "B | "PHA  | Hazards An  | alysis |   |   |   |

# Add a Changed Element to the Change Project

### **Before You Begin**

• Modify the Change Project Has Elements relationship family to include families, whose records you want to add as changed elements.

### Procedure

- 1. Access the **Changed Elements** section for the Change Project to which you want to associate a changed element.
- 2. In the upper-left corner of the section, select +.

The **Search** window appears.

| Search |   |  |
|--------|---|--|
| ~      | ~ |  |

| 3. | In the Look in box, select the family to which the record you want to add as a changed | element |
|----|--|---------|
|    | belongs.   |         |

The list of records belonging to the family appears.

ОК

Cancel

|                                       |  |              | ~               |             |              |              |         | Q     |
|---------------------------------------|--|--------------|-----------------|-------------|--------------|--------------|---------|-------|
| Steam System "B" F<br>Hazards Analysi | HA<br>5 Human Resource                                 | Site Referen | ce Hazards      | Analysis Re | vision M     | I MOC Change | Project |       |
| Steam System "A" F<br>Hazards Analysi | HA<br>5 Human Resource                                 | SIL Analysis | Site Referer    | nce Haza    | ırds Analysi | s Revision   |         | <br>l |
| ( )                                   | soller What-If Hazards A<br>Human Resource             |              | Ilysis System/N | lode Haz    | ards Analys  | sis Revision |         | <br>ł |
|                                       | rds Analysis<br>8 Reference Docum<br>Instrumented Func |              |                 |             |              |              |         |       |
| #1 Crude PHA<br>Hazards Analysi       | s Human Resource                                       | Site Referen | ce Hazards      | Analysis Re | vision       |              |         |       |
| LOPA Risk Asse                        | esment   |              |                 |             |              |              |         |       |
|                                       |  |              |                 |             |              |              |         |       |

4. Select the record that you want to associate with the project as changed element, and then select **OK**.

The selected record is added as a changed element to the Change Project. In the **Changed Elements** section, the updated list of records appear.

# **Remove a Changed Element from the Change Project**

### Procedure

- 1. Access the **Changed Elements** section for the Change Project from which you want to remove a changed element.
- 2. In the row for each record that want to remove from the Change Project, select the check box.

In the upper-right corner of the section, the 🔟 button is enabled.

3. Select 🔟.

The **Delete Changed Element** dialog box appears, asking you to confirm that you want to remove the association between the Change Project and the changed element.

4. Select **OK**.

Each selected changed element is removed from the Change Project.

# Chapter 7

# Deployment

Topics:

• Deployment and Upgrade

# **Deployment and Upgrade**

Deployment and Upgrade content for various APM modules has been consolidated into a single document. For more information, refer to the module-specific information in the APM Module Deployment and Upgrade document.

# Chapter



# Admin

# **Topics:**

- MOC Admin Page
- Exceptions
- Questions
- Checklists and Questions

# **MOC Admin Page**

# Access the MoC Admin Page

### Procedure

In the module navigation menu, select Admin > Application Settings > Management of Change.

The MoC Admin page appears.

|                     | MOC Overview × 🔇 MoC Admin × | 目 へ ? だ             |
|---------------------|------------------------------|---------------------|
| fanagement of Chang | e A 🗹 Exceptions             |                     |
| Exceptions          | + 88                         |                     |
|                     | EXCEPTION ID                 | DESCRIPTION         |
| Questions           | Asset Change                 | Asset Change        |
| Checklists          | Asset Removal                | Asset Removal       |
|                     | Chemical Change              | Chemical Change     |
|                     | Controls parameters          | Controls parameters |
|                     | Electrical load              | Electrical load     |
|                     | Energy Source                | Energy Source       |
|                     | Exit Route                   | Exit Route          |
|                     | Flare addition               | Flare addition      |
|                     | Heights                      | Heights             |
|                     | Lock out Tag out             | Lock out Tag out    |
|                     | Machine guarding             | Machine guarding    |
|                     | Material Storage             | Material Storage    |
|                     | MSDS MSDS                    | MSDS                |
|                     | Procedural                   | Procedural          |

# **Exceptions**

# **About Exceptions**

Exceptions are action items that must be completed by the team before delivering a change. In the Application Settings for MOC, you can create Exception records to identify the type of Exception that must be created for an Answer Option. When you respond to Questions in a Checklist in the Change Project, Exceptions are automatically created by copying the Exceptions that you created.

## **Default Exceptions in MoC**

APM provides a set of Exceptions, by default. These Exceptions are associated with Answer Options of Questions. The following table lists the default Exceptions, which you can modify as needed:

| Exception ID                                      | Exception Type   |
|---|--|
| Asset Change                                      | Update EAM/CMMS records  |
| Asset Removal                                     | Update EAM/CMMS records  |
| Chemical Change                                   | Update facility chemical hazard storage documentation                          |
| Controls parameters                               | List all pre and post change controls parameters                               |
| Electrical load                                   | Update electrical safe work plans  |
| Energy Source                                     | Update LOTO documentation and safe work plans                                  |
| Exit Route  | Revise or replace emergency exit route placards                                |
| Flare addition                                    | Update flare usage documentation   |
| Heights   | Update safe work plans related to working above grade                          |
| Lock out Tag out                                  | Update safe work plans, and applicable LOTO plans                              |
| Machine guarding                                  | Revise existing or add new machine guarding as app                             |
| Material Storage                                  | Update facility chemical hazard storage documentation                          |
| MSDS  | Update material safety data sheet  |
| Procedural  | Update applicable Operating or Maintenance procedure                           |
| Process Sewer                                     | Update sewer source and usage documentation                                    |
| Solid Waste                                       | Update facility chemical hazard storage documentation                          |
| Storm Drain                                       | Notify local authorities, and update facility possible discharge documentation |
| Update and link all updated drawings and diagrams | Drawings/Diagrams  |
| Update applicable emergency evacuation routing    | Ingress/Egress   |
| Update the process safety information             | Process Safety Information   |

# **Access an Exception**

### Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select **Exceptions**.

A list of available Exceptions appears.

| MOC Overvi               | ew 🛛 🏹 MoC Admin 🛛 🕹 | 目 へ ? 竣             |
|--------------------------|----------------------|---------------------|
| Management of Change A 🔇 | Exceptions           |                     |
| Exceptions               | + ôô                 | ۱.<br>۱.            |
|                          | EXCEPTION ID         | DESCRIPTION         |
| Questions                | Asset Change         | Asset Change        |
| Checklists               | Asset Removal        | Asset Removal       |
|                          | Chemical Change      | Chemical Change     |
|                          | Controls parameters  | Controls parameters |
|                          | Electrical load      | Electrical load     |
|                          | Energy Source        | Energy Source       |
|                          | Exit Route           | Exit Route          |
|                          | Flare addition       | Flare addition      |
|                          | Heights              | Heights             |
|                          | Lock out Tag out     | Lock out Tag out    |
|                          | Machine guarding     | Machine guarding    |
|                          | Material Storage     | Material Storage    |
|                          | MSDS MSDS            | MSDS                |
|                          | Procedural           | Procedural          |

3. In the **Exception ID** column, select the link for the Exception that you want to access.

The datasheet for the selected Exception appears.

| III 🛕 🔇 MOC Over     | view × 🛛 2017-0001 ×   | 昌 へ ? 竣               |
|----------------------|--|-----------------------|
| Project Summary      | <ul> <li>Update the process safety information 1<br/>Created On Tuesday, September 26, 2017</li> </ul> | e                     |
| Checklist            | Definition   | 0 Reference Documents |
| Exceptions and Tasks | Datasheet ID:<br>MI MOC Exception  | Site: AlexanEnergy    |
| Changed Elements     | Details  |                       |
|                      | Exception Update the process safety information 1  |                       |
|                      | Description Update the process safety information  | ير<br>ار              |
|                      | Exception Type Process Safety Information  |                       |
|                      | Status   |                       |
|                      | Not Started  | $\checkmark$          |

**Note:** As needed, you can modify the values in the available fields, and then select 🛅 to save your changes. The changes made to Exceptions in the administrative settings for MOC will not affect the Change Projects that have used the Exceptions prior to modification.

# **Create an Exception**

# Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select **Exceptions**.

A list of available Exceptions appears.

|                         | C Overview X 🐼 MoC Admin X | 目 へ ? ゆ             |
|-------------------------|----------------------------|---------------------|
| Management of Change A. | C Exceptions               |                     |
| Exceptions              | + 66                       | ۱.<br>۱             |
|                         | EXCEPTION ID               | DESCRIPTION         |
| Questions               | Asset Change               | Asset Change        |
| Checklists              | Asset Removal              | Asset Removal       |
|                         | Chemical Change            | Chemical Change     |
|                         | Controls parameters        | Controls parameters |
|                         | Electrical load            | Electrical load     |
|                         | Energy Source              | Energy Source       |
|                         | Exit Route                 | Exit Route          |
|                         | Flare addition             | Flare addition      |
|                         | Heights                    | Heights             |
|                         | Lock out Tag out           | Lock out Tag out    |
|                         | Machine guarding           | Machine guarding    |
|                         | Material Storage           | Material Storage    |
|                         | MSDS                       | MSDS                |
|                         | Procedural                 | Procedural          |

3. In the upper-left corner of the workspace, select +.

A blank datasheet for an Exception appears in the workspace.

| MOC Overv                | iew × 🖉 MoC Admin × 🖺 🔍 ? 🅸                               |
|--------------------------|---|
| Management of Change A 💽 | < Machine guarding  |
| Exceptions               | Datasheet ID:<br>MI MOC Exception                         |
| Questions                | Details   |
| Checklists               | Exception   |
|                          | Machine guarding  |
|                          | Description Machine guarding                              |
|                          | ار<br>ب مرسر کمیرسک                                       |
|                          | Exception Type  |
|                          | Revise existing or add new machine guarding as applicable |
|                          | Status V  |
|                          |   |

- 4. As needed, enter values in the available fields.
- 5. In the upper-right corner of the workspace, select 🛅.

The Exception is created.

### **Next Steps**

• Create a Question

# **Delete an Exception**

### Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select **Exceptions**.

A list of available Exceptions appears.

|                          | view X 🐼 MoC Admin X | 目 へ ? ゆ             |
|--------------------------|----------------------|---------------------|
| Management of Change A 🕑 | Exceptions           |                     |
| Exceptions               | + &                  | III                 |
|                          | EXCEPTION ID         | DESCRIPTION         |
| Questions                | Asset Change         | Asset Change        |
| Checklists               | Asset Removal        | Asset Removal       |
|                          | Chemical Change      | Chemical Change     |
|                          | Controls parameters  | Controls parameters |
|                          | Electrical load      | Electrical load     |
|                          | Energy Source        | Energy Source       |
|                          | Exit Route           | Exit Route          |
|                          | Flare addition       | Flare addition      |
|                          | Heights              | Heights             |
|                          | Lock out Tag out     | Lock out Tag out    |
|                          | Machine guarding     | Machine guarding    |
|                          | Material Storage     | Material Storage    |
|                          | MSDS MSDS            | MSDS                |
|                          | Procedural           | Procedural          |

3. In the row for each Exception that you want to delete, select the check box.

In the upper-right corner of the workspace, the 🔟 button is enabled.

4. Select 🛄.

The **Delete MOC Exception** dialog box appears, asking you to confirm that you want to delete each selected Exception and its relationship with the associated Answer Options.

**Note:** Deleting Exceptions in the administrative settings for MOC will not affect the Change Projects that have used the Exceptions prior to deletion.

5. Select **OK**.

The selected Exception is deleted and the updated list of Exceptions appears in the workspace.

# Questions

# **About Questions**

In MOC, a Checklist is presented as a list of questions. These questions must be designed such that they identify all relevant impact areas of the change and action items that must be completed for a smooth implementation of the change. Questions must take into consideration various aspects of the change, such as the technical feasibility of the change and its impact on safety.

In the Application Settings for MOC, you can configure a Question with two or more Answer Options. Each Question can be configured to have only one Exception. The Checklist Questions that you created in the Application Settings for MOC are used as a template when adding a Checklist to a Change Project. When

you respond to Questions in MOC, based on your configuration for Answer Options, Exceptions are created automatically.

### Default Questions in MoC

By default, APM provides a set of Questions. These Questions are also associated with Answer Options that are linked to the default Exceptions. The following table lists the default Questions and the associated Answer Options, which you can modify as needed:

| MI MOC Checklist Question Records |   | MI MOC Answer Option Records  |   |
|-----------------------------------|---|---|---|
| Checklist Question ID             | Question Text   | Answer  | Exception   |
| Asset Change                      | Does the change involve the installation of new or different assets?  | Yes   | Asset Change                                      |
| Asset Removal                     | Does the change require<br>demolition or destruction of<br>existing assets?   | Yes   | Asset Removal                                     |
| Chemical Change                   | Does the change require the<br>use of a toxic, hazardous or<br>ozone depleting chemical?  | Does the change require the use of a toxic, hazardous or     Yes     Procedural |   |
| Controls parameters               | Will controls parameters<br>(setpoints, alarm limits,<br>ranges) be impacted by the<br>change project?                                | Yes Controls paramet  |   |
| Drawings/Diagrams                 | Does the change project affect any drawings or diagrams?  | Yes   | Update and link all updated drawings and diagrams |
| Electrical load                   | Does the change increase<br>electrical loading such that<br>additional PPE or physical<br>barriers would be needed?                   | Yes   | Electrical load                                   |
| Energy Source                     | Will the change modify<br>processes or systems involving<br>energy sources (e.g.<br>gravitational, hydraulic,<br>electrical, steam) ? | Yes   | Energy Source                                     |
| Exit Route                        | Does the change involve<br>changes to existing emergency<br>exit routes, muster areas, etc?   | Yes   | Exit Route  |
| Flare addition                    | Will the change result in the possible discharge to a flare, or other destructive mechanism?  | Yes   | Flare addition                                    |
| Heights                           | Will the change add or change working at heights?   | Yes   | Heights   |
| Ingress/Egress                    | Will ingress or Egress be<br>affected by the change<br>project?   | Yes   | Update applicable emergency evacuation routing    |

| MI MOC Checklist Question Records |  | MI MOC Answer Option Records |                                       |  |
|-----------------------------------|--|------------------------------|---------------------------------------|--|
| Checklist Question ID             | Question Text  | Answer                       | Exception                             |  |
| Lock out Tag out                  | ock out Tag out Will the change necessitate<br>revision of existing lockout<br>tagout or job safety analyses?            |                              | Lock out Tag out                      |  |
| Machine guarding                  | Will the change add or modify<br>equipment or machinery<br>requiring physical guarding?                                  | Yes                          | Machine guarding                      |  |
| Material Storage                  | Will the change introduce new<br>chemicals or significantly<br>increase the usage or storage<br>of an existing chemical? | Yes                          | Material Storage                      |  |
| MSDS                              | Will process chemistry be<br>changed as a result of the<br>change project?   | Yes                          | MSDS                                  |  |
| Procedural                        | Does the change project affect Yes Con<br>Operating or Maintenance<br>procedures?  |                              | Controls parameters                   |  |
| Process Safety Information        | Does the change project affect process safety information?   | Yes                          | Update the process safety information |  |
| Process Sewer                     | Will the change add or modify<br>a discharge to a process<br>sewer?     Yes  |                              | Process Sewer                         |  |
| Solid Waste                       | Will the change generate a<br>new type or increase the<br>volume of solid waste?   | Yes                          | Solid Waste                           |  |
| Storm Drain                       | Will the change result in a possible discharge to an "outside" storm drain system?                                       | Yes                          | Storm Drain                           |  |

# Access a Question

# About This Task

Before You Begin

• As needed, modify the MI\_MOC\_ANS\_OPT System Code table, which contains a list of values that populates the **Answer** box in the **Question** workspace.

# Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select **Questions**.

A list of available Questions appears.

| MOC Overview             | v × 🏹 MoC Admin ×     | 目 へ ? ゆ   |
|--------------------------|-----------------------|---|
| Management of Change A 🔇 | Questions             |   |
| Exceptions               | + 88                  |   |
|                          | CHECKLIST QUESTION ID | QUESTION TEXT   |
| Questions                | Asset Change          | Does the change involve the installation of new or different as   |
| Checklists               | Asset Removal         | Does the change require demolition or destruction of existing     |
|                          | Chemical Change       | Does the change require the use of a toxic, hazardous or ozon     |
|                          | Controls parameters   | Will controls parameters (setpoints, alarm limits, ranges) be in  |
|                          | Drawings/Diagrams     | Does the change proejct affect any drawings or diagrams?          |
|                          | Electrical load       | Does the change increase electrical loading such that addition    |
|                          | Energy Source         | Will the change modify processes or systems involving energy      |
|                          | Exit Route            | Does the change involve changes to existing emergency exit n      |
|                          | Flare addition        | Will the change result in the possible discharge to a flare, or o |
|                          | Heights               | Will the change add or change working at heights?                 |
|                          | Ingress/Egress        | Will ingress or Egress be affected by the change project?         |
|                          | Lock out Tag out      | Will the change necessitate revision of existing lockout tagout   |
|                          | Machine guarding      | Will the change add or modify equipment or machinery requir       |
|                          | Material Storage      | Will the change introduce new chemicals or significantly incre    |

 In the Checklist Question ID column, select the link for the Question that you want to access. The page for the selected Question appears.

| MOC Overv               | iew 🛛 🗙 💽 testproj   | X 🔇 MoC Ad                  | min X                      |                     | 、? 錄       |
|-------------------------|--|-----------------------------|----------------------------|---------------------|------------|
| Management of Change A  | < Controls parameter   | Controls parameters         |                            |                     |            |
| Exceptions              | Datasheet ID:<br>MI MOC Checklist Question   |                             |                            | Site:<br>Roanoke VA | 0          |
| Questions<br>Checklists | Details  |                             |                            | Roanoke, VA         |            |
|                         | Question<br>Controls parameters<br>Description<br>Text area<br>Question Text<br>Will controls parameters (setp | oints, alarm limits, ranges | s) be impacted by the char | nge project?        | Y          |
|                         | Answer Options   |                             | Exception Triggered        |                     |            |
|                         | N\A  | $\checkmark$                |                            |                     | <u>iii</u> |
|                         | No   | $\checkmark$                |                            | •••                 | Ū          |
|                         | Yes  | $\checkmark$                | Controls parameters        |                     | Ē          |
|                         | + Add Answer Option  |                             |                            |                     |            |

The following information appears on the page:

• Details: This section contains the datasheet for the selected Question.

### Note:

If you want to modify values in the **Details** section:

- a. In the upper-right corner of the **Questions** workspace, select  $olimitsize{(1)}$ . The fields on the datasheet are enabled.
- b. As needed, modify the values in the available fields, and then select 🛅. Your changes are saved.
- **Answer Options:** This subsection contains a row for each Answer Option. Each row contains the following columns of information:
  - Answer: Contains the answer that you selected for the Question.
  - **Exception Triggered:** Contains the Exception that you selected for the answer in the **Answer** column.

### Note:

In the Answer Options subsection, you can perform the following tasks:

- You can modify the values in the Answer and Exception Triggered boxes. If you want to change the Answer Option to which the Exception is associated, you must first delete the Answer Option with which an Exception is currently associated, and then associate another Answer Option with the Exception.
- You can select 🔟 to delete the Answer Option.

**Note:** The changes made to Questions in the administrative settings for MOC will not affect the Change Projects that have used the Questions prior to modification.

# **Create a Question**

# **About This Task**

Before You Begin

- As needed, modify the MI\_MOC\_ANS\_OPT System Code table, which contains a list of values that populates the **Answer** box in the **Question** workspace.
- Create the Exception that you want to link to an Answer Option in the Question.

## Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select **Questions**.

A list of available Questions appears.

| MOC Overvie              | ew X                              | 🔇 MoC Admin 🛛 🕹       | 目 へ ? ゆ  |  |  |  |
|--------------------------|-----------------------------------|-----------------------|--|--|--|--|
| Management of Change A 🔇 | Management of Change A  Questions |                       |  |  |  |  |
| Exceptions               | + 6                               | <del>)</del> ê        | ŵ  |  |  |  |
| Questions                |                                   | CHECKLIST QUESTION ID | QUESTION TEXT  |  |  |  |
| Questions                |                                   | Asset Change          | Does the change involve the installation of new or different as                      |  |  |  |
| Checklists               |                                   | Asset Removal         | Does the change require demolition or destruction of existing                        |  |  |  |
|                          |                                   | Chemical Change       | Does the change require the use of a toxic, hazardous or ozon                        |  |  |  |
|                          |                                   | Controls parameters   | Will controls parameters (setpoints, alarm limits, ranges) be in                     |  |  |  |
|                          |                                   | Drawings/Diagrams     | Does the change proejct affect any drawings or diagrams?                             |  |  |  |
|                          |                                   | Electrical load       | Does the change increase electrical loading such that additior                       |  |  |  |
|                          |                                   | Energy Source         | Will the change modify processes or systems involving energy                         |  |  |  |
|                          |                                   | Exit Route            | Does the change involve changes to existing emergency exit $\ensuremath{\mathbf{n}}$ |  |  |  |
|                          |                                   | Flare addition        | Will the change result in the possible discharge to a flare, or $o^{\mathrm{i}}$     |  |  |  |
|                          |                                   | Heights               | Will the change add or change working at heights?                                    |  |  |  |
|                          |                                   | Ingress/Egress        | Will ingress or Egress be affected by the change project?                            |  |  |  |
|                          |                                   | Lock out Tag out      | Will the change necessitate revision of existing lockout tagout                      |  |  |  |
|                          |                                   | Machine guarding      | Will the change add or modify equipment or machinery requir                          |  |  |  |
|                          |                                   | Material Storage      | Will the change introduce new chemicals or significantly incre                       |  |  |  |

3. In the upper-left corner of the workspace, select +.

A blank datasheet for Question appears in the workspace, displaying the **Details** section and **Answer Options** subsection.

| Moc Admir                | n ×  | 🖺 Q ? 🕸     |
|--------------------------|--|-------------|
| Management of Change A 🗹 | < N  |             |
| Exceptions               | Datasheet ID:                                  | Site:       |
|                          | MI MOC Checklist Questic 🗸                     | Roanoke, VA |
| Questions                | Details  |             |
| Checklists               |  |             |
|                          | Question                                       |             |
|                          | Text input                                     |             |
|                          | This field is required                         |             |
|                          | Description                                    |             |
|                          | Text area                                      |             |
|                          |  | <u>لا</u>   |
|                          |  |             |
|                          | Question Text                                  |             |
|                          | Text input                                     |             |
|                          | This field is required                         |             |
|                          | Answer Options                                 |             |
|                          | Answer Exception Triggered + Add Answer Option |             |

- 4. In the **Question** box, enter a unique name for the Question.
- 5. In the **Description** box, enter a description for the Question.
- 6. In the **Question Text** box, enter the text for the Question.
- 7. In the Answers Options subsection, select Add Answer Option.

A new row for adding an Answer Option appears, displaying a drop-down list box in the **Answer** column and a box in the **Exception Triggered** column.

| MOC Overv              | iew 🗙 🔇 testproj                                      | × 🔇 MoC Adr      | nin ×               | 🖺 へ ? 🕸              |
|------------------------|---|------------------|---------------------|----------------------|
| Management of Change A | < New Question  |                  |                     |                      |
| Exceptions             | Datasheet ID:<br>MI MOC Checklist Question            | $\sim$           |                     | Site:<br>Roanoke, VA |
| Questions              | Details   |                  |                     |                      |
| Checklists             | Question  |                  |                     |                      |
|                        | Instrument Caibrations                                |                  |                     |                      |
|                        | Instrument Calibrations don                           | e and documented |                     | الا<br>ا             |
|                        | Question Text   |                  |                     |                      |
|                        | Have the Instrument calibrations done and documented? |                  |                     |                      |
|                        | Answer Options  |                  |                     |                      |
|                        | Answer  |                  | Exception Triggered |                      |
|                        |   | ~                |                     | ••• 🔟                |
|                        | + Add Answer Option                                   |                  |                     |                      |

- 8. In the **Answer** box, select a value for the answer.
- 9. If you want to associate the Answer Option with an Exception, complete the following steps:
  - a. In the row containing the Answer Option, next to the Exception Triggered box, select ••••.
     The Exceptions window appears, displaying the list of Exceptions that are available in the database.

#### Exceptions

| Asset Removal<br>Chemical Change<br>Controls parameters<br>Electrical load<br>Energy Source<br>Exit Route | Asset Removal<br>Chemical Change<br>Controls parameters<br>Electrical load<br>Energy Source | 6426214404<br>6426214404<br>6426214405<br>6426214403<br>6426214403 |
|---|---|--|
| Controls parameters<br>Electrical load<br>Energy Source   | Controls parameters<br>Electrical load<br>Energy Source                                     | 6426214405<br>6426214403   |
| Electrical load<br>Energy Source  | Electrical load<br>Energy Source  | 6426214403   |
| Energy Source   | Energy Source   |  |
| 0,  |   | 6426214403   |
| Exit Route  |   |  |
|   | Exit Route  |  |
| Flare addition  | Flare addition  | 6426214404   |
| Heights   | Heights   | 6426214405   |
| Lock out Tag out  | Lock out Tag out  | 6426214405   |
| Machine guarding  | Machine guarding  | 6426214404   |
| Material Storage  | Material Storage  | 642621440  |
| Procedural  | Procedural  | 6426214403   |
| Process Sewer   | Process Sewer   | 642621440  |
| ref   | ef  | 642631043  |
| Solid Waste   | Solid Waste   | 6426214404   |
| 1 - 19 of 19 Results  |   | ← Page 1 of 1 →  |

b. Select the Exception that you want to associate with the Answer Option, and then select Link.
 In the Exception Triggered box, the Exception ID of the selected Exception appears.

| Inswer |        | Exception Triggered |     |   |
|--------|--------|---------------------|-----|---|
| Yes    | $\sim$ | Electrical load     |     | Ŵ |
| No     | ~      |                     | ••• | Ē |

Note: For a Question, you can associate only one Answer Option with an Exception. When you

associate an Exception with an Answer Option, the <sup>eee</sup> button next to the **Exception Triggered** box is disabled for other Answer Options in the Question.

- 10. If you want to add more Answer Options to the Question, repeat steps 8 through 10.
- 11. In the upper-right corner of the workspace, select 🛅.

The Question is created.

Answer Options

**Note:** If you save the Question without associating it with at least two Answer Options, the **Add Answer Option** dialog box appears, asking you to associate the Question with a minimum of two Answer Options.

# Results

• For each answer that you have included for the question, an Answer Option record is created and associated with the Question.

### **Next Steps**

Create a Checklist

# **Delete a Question**

### Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select **Questions**.

A list of available Questions appears.

| MOC Overv                | iew X   | 🔕 MoC Admin 🛛 🕹       | <b>員 へ ? 竣</b>  |
|--------------------------|---------|-----------------------|---|
| Management of Change A 💽 | Questic | ons                   |   |
| Exceptions               | + 6     | <del>38</del>         | ŵ   |
| Questions                |         | CHECKLIST QUESTION ID | QUESTION TEXT   |
| Questions                |         | Asset Change          | Does the change involve the installation of new or different as             |
| Checklists               |         | Asset Removal         | Does the change require demolition or destruction of existing               |
|                          |         | Chemical Change       | Does the change require the use of a toxic, hazardous or ozon               |
|                          |         | Controls parameters   | Will controls parameters (setpoints, alarm limits, ranges) be ii            |
|                          |         | Drawings/Diagrams     | Does the change proejct affect any drawings or diagrams?                    |
|                          |         | Electrical load       | Does the change increase electrical loading such that additior              |
|                          |         | Energy Source         | Will the change modify processes or systems involving energy                |
|                          |         | Exit Route            | Does the change involve changes to existing emergency exit $\boldsymbol{n}$ |
|                          |         | Flare addition        | Will the change result in the possible discharge to a flare, or o           |
|                          |         | Heights               | Will the change add or change working at heights?                           |
|                          |         | Ingress/Egress        | Will ingress or Egress be affected by the change project?                   |
|                          |         | Lock out Tag out      | Will the change necessitate revision of existing lockout tagout             |
|                          |         | Machine guarding      | Will the change add or modify equipment or machinery requir                 |
|                          |         | Material Storage      | Will the change introduce new chemicals or significantly incre              |

3. In the row for each Question that you want to delete, select the check box.

In the upper-right corner of the workspace, the 🔟 button is enabled.

4. Select 🛄.

The **Delete MOC Question** dialog box appears, asking you to confirm that you want to delete each selected Question and its association with Checklists.

**Note:** Deleting Questions in the administrative settings for MOC will not affect the Change Projects that have used the Questions prior to deletion.

5. Select OK.

The selected Question is deleted and the updated list of Questions appears in the workspace.

# **Checklists and Questions**

# **About Checklists and Questions**

For successful implementation of a change, a comprehensive checklist must be created, which includes but is not limited to the following aspects of the change:

- Prerequisites that must be fulfilled before the implementation of change. For example, if the change
  involves replacing an equipment model, the impacted personnel in the organization must be trained
  on the new equipment.
- Factors that will be affected by the change (i.e., people, processes, assets, and data).
- Factors that may affect the safety of a plant. For example, requirements for an effective emergency response.

In MOC, you can group Questions together to form a Checklist. For a Change Project, you can configure many types of Checklists and use them at different phases of the project. For example, you can create a Checklist for change planning, a Checklist for change implementation, and a checklist for change communication.

# **Access a Checklist**

### **Before You Begin**

As needed, modify the MI\_MOC\_ANS\_OPT System Code table, which contains a list of values that populates the **Answer** box in the **Question** workspace.

### Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select Checklists.

A list of available Checklists appears.

| MoC Admin                | ×                      | 自 く ? ゆ |
|--------------------------|------------------------|---------|
| Management of Change A 🔇 | Checklists             |         |
| Exceptions               | + 88                   |         |
| Quartiens                | CHECKLIST ID CHANG     | ЕТҮРЕ   |
| Questions                | Standard MOC Checklist |         |
| Checklists               | Test                   |         |
| •                        |                        |         |

3. In the **Checklist ID** column, select the link for the Checklist that you want to access.

The datasheet for the selected Checklist appears, displaying the **Definition** and **Checklist Items** sections.

| MoC Admir                | n ×                              | 🖺 Q ? 🕸            |
|--------------------------|----------------------------------|--------------------|
| Management of Change A 🔇 | < Standard MOC Checklist         |                    |
| Exceptions               | Definition                       | Checklist Items    |
| Questions                | Datasheet ID:                    | Site: AlexanEnergy |
| Checklists               | Details                          | ✓ Alexanthergy     |
|                          | Checklist Standard MOC Checklist |                    |
|                          | Description Text area            | لا                 |
|                          | Change Type Text input           |                    |

The following information appears in these sections:

• Definition: Contains the datasheet for the Checklist. This tab is selected by default.

**Note:** As needed, in the **Definition** section, you can modify the values in the available fields, and then select to save your changes.

• **Checklist Items:** Contains the list of Questions that are associated with the Checklist.

Note: As needed, you can add or unlink Questions from the Checklist.

**Note:** The changes made to Checklists in the administrative settings for MOC will not affect the Change Projects that have used the Checklists prior to modification.

# **Create a Checklist**

### **Before You Begin**

• Create the Questions that you want to add in the Checklist.

### Procedure

- 1. Access the **MoC Admin** page.
- 2. In the left pane, select **Checklists**.

A list of available Checklists appears.

| 🔝 🛓 🔕 MoC Admin          | ×                      |             | ? 錄     |
|--------------------------|------------------------|-------------|---------|
| Management of Change A 🔇 | Checklists             |             |         |
| Exceptions               | + 88                   |             | <b></b> |
| Questions                | CHECKLIST ID           | CHANGE TYPE |         |
| Questions                | Standard MOC Checklist |             |         |
| Checklists               | Test                   |             |         |
| L                        |                        |             |         |

3. In the upper-left corner of the workspace, select +.

The **Definition** section appears in the workspace, displaying a blank datasheet for Checklist.

| MoC Adm                  | in ×                               | 目 へ ? ゆ                |
|--------------------------|------------------------------------|------------------------|
| Management of Change A 🤇 | < New Checklist                    |                        |
| Exceptions               | Definition                         | Checklist Items        |
| Questions                | Datasheet ID:<br>MI MOC Checklist  | Site:<br>Alexan_rlines |
| Checklists               | Details                            | · Areadiiiiies         |
|                          | Checklist                          |                        |
|                          | Text input                         |                        |
|                          | This field is required Description |                        |
|                          | Text area                          |                        |
|                          |                                    | ۲                      |
|                          | Change Type                        |                        |
|                          | Text input                         |                        |

- 4. As needed, enter values in the available fields.
- 5. In the upper-right corner of the **Checklists** workspace, select  $\square$ .

The Checklist is saved.

6. In the workspace, select **Checklist Items**.

The **Checklist Items** section appears, displaying a list of Questions associated with the Checklist.

| MOC Overvi             | ew X 😧 testproj X 😧 MoC Admin | × 🖺 🤇 ? 竣       |
|------------------------|-------------------------------|-----------------|
| Management of Change A | < test name                   |                 |
| Exceptions             | Definition                    | Checklist Items |
| Questions              | + &                           |                 |
| Checklists             |                               |                 |
|                        |                               |                 |
|                        |                               |                 |
|                        |                               |                 |
|                        |                               |                 |
|                        | No Data                       |                 |
|                        |                               |                 |

7. In the upper-left corner of the section, select +.

The **Select questions to add** window appears, displaying a list of Questions that are available in the database.

| CHECKLIST QUESTION ID      | QUESTION TEXT  |
|----------------------------|--|
| Electrical load            | Does the change increase electrical loading such that additional PPE or physical b   |
| Energy Source              | Will the change modify processes or systems involving energy sources (e.g. gravit    |
| Exit Route                 | Does the change involve changes to existing emergency exit routes, muster areas      |
| Flare addition             | Will the change result in the possible discharge to a flare, or other destructive me |
| Heights                    | Will the change add or change working at heights?                                    |
| Ingress/Egress             | Will ingress or Egress be affected by the change project?                            |
| Lock out Tag out           | Will the change necessitate revision of existing lockout tagout or job safety analy  |
| Machine guarding           | Will the change add or modify equipment or machinery requiring physical guardin      |
| Material Storage           | Will the change introduce new chemicals or significantly increase the usage or st    |
| MSDS                       | Will process chemistry be changed as a result of the change project?                 |
| Procedural                 | Does the change project affect Operating or Maintenance procedures?                  |
| Process Safety Information | Does the change project affect process safety information?                           |
| Process Sewer              | Will the change add or modify a discharge to a process sewer?                        |
| Solid Waste                | Will the change generate a new type or increase the volume of solid waste?           |
| Storm Drain                | Will the change result in a possible discharge to an "outside" storm drain system    |

Select questions to add

Cancel

Link

- 8. For each Question that you want to add to the Checklist, next to the row containing the Question, select the check box.
- 9. In the lower-right corner of the window, select Link.

The Checklist is created and the Questions are added to the Checklist.

| MOC Overview           | v X 🔇 testproj X      | 🔕 MoC Admin | ×                | ■ へ ? 竣     |
|------------------------|-----------------------|-------------|------------------|-------------|
| Management of Change A | < test name           |             |                  |             |
| Exceptions             | Definition            |             | Checklist        | Items       |
| Questions              | + 88                  |             |                  |             |
| Checklists             | CHECKLIST QUESTION ID | ANSWER      | EXCEPTION ID     | ENTY_KEY    |
|                        | Electrical load       | Yes         | Electrical load  | 64262144021 |
|                        | Energy Source         | Yes         | Energy Source    | 64262144009 |
|                        | Exit Route            | Yes         | Exit Route       | 64262144016 |
|                        | Heights               | Yes         | Heights          | 64262144024 |
|                        | Lock out Tag out      | Yes         | Lock out Tag out | 64262144011 |
|                        |                       |             | Material Storage |             |

## Add Questions to a Checklist

#### **Before You Begin**

• Create the Questions that you want to add in the Checklist.

#### **About This Task**

This topic describes how to add Questions to an existing Checklist.

#### Procedure

- 1. Access the Checklist to which you want to add Questions.
- 2. In the **Checklists** workspace, select **Checklist Items**.

The **Checklist Items** section appears, displaying a grid containing **Question** and **Exception Triggered** columns.

| MOC Overvi             | ew X 😧 testproj X 😧 MoC Admin | × 🖺 🤇 ? 竣       |
|------------------------|-------------------------------|-----------------|
| Management of Change A | < test name                   |                 |
| Exceptions             | Definition                    | Checklist Items |
| Questions              | + &                           |                 |
| Checklists             |                               |                 |
|                        |                               |                 |
|                        |                               |                 |
|                        |                               |                 |
|                        |                               |                 |
|                        | No Data                       |                 |
|                        |                               |                 |

3. In the upper-left corner of the section, select +.

The **Select questions to add** window appears, displaying a list of Questions that are available in the database.

| CHECKLIST QUESTION ID      | QUESTION TEXT  |
|----------------------------|--|
| Electrical load            | Does the change increase electrical loading such that additional PPE or physical l   |
| Energy Source              | Will the change modify processes or systems involving energy sources (e.g. gravit  |
| Exit Route                 | Does the change involve changes to existing emergency exit routes, muster area   |
| Flare addition             | Will the change result in the possible discharge to a flare, or other destructive me   |
| Heights                    | Will the change add or change working at heights?  |
| Ingress/Egress             | Will ingress or Egress be affected by the change project?  |
| Lock out Tag out           | Will the change necessitate revision of existing lockout tagout or job safety analy  |
| Machine guarding           | Will the change add or modify equipment or machinery requiring physical guardi   |
| Material Storage           | Will the change introduce new chemicals or significantly increase the usage or significant the usage or sig |
| MSDS                       | Will process chemistry be changed as a result of the change project?   |
| Procedural                 | Does the change project affect Operating or Maintenance procedures?  |
| Process Safety Information | Does the change project affect process safety information?   |
| Process Sewer              | Will the change add or modify a discharge to a process sewer?  |
| Solid Waste                | Will the change generate a new type or increase the volume of solid waste?   |
| Storm Drain                | Will the change result in a possible discharge to an "outside" storm drain system  |

Select questions to add

Cancel

Link

- 4. For each Question that you want to add to the checklist, in the row containing the Question, select the check box.
- 5. In the lower-right corner of the window, select **Link**.

| 🔝 🛕 🔇 мос о            | verview 🛛 🗙 🔇 testproj | MoC Admin | ×                | 昌 へ ? 🕸     |
|------------------------|------------------------|-----------|------------------|-------------|
| Management of Change A | < test name            |           |                  |             |
| Exceptions             | Definition             |           | Checklist        | Items       |
| Questions              | + 68                   |           |                  |             |
| Checklists             | CHECKLIST QUESTION ID  | ANSWER    | EXCEPTION ID     | ENTY_KEY    |
|                        | Electrical load        | Yes       | Electrical load  | 64262144021 |
|                        | Energy Source          | Yes       | Energy Source    | 64262144009 |
|                        | Exit Route             | Yes       | Exit Route       | 64262144016 |
|                        | Heights                | Yes       | Heights          | 64262144024 |
|                        | Lock out Tag out       | Yes       | Lock out Tag out | 64262144011 |
|                        |                        |           |                  |             |

The Questions are added to the Checklist.

## **Unlink Questions From a Checklist**

#### Procedure

- 1. Access the Checklist from which you want to unlink Questions.
- 2. Select the **Checklist Items** tab.

The **Checklist Items** section appears, displaying the list of Questions that are associated with the Checklist.

3. For each Question that you want to remove from the Checklist, next to the row containing the Question, select the check box.

In the upper-right corner of the workspace, the 🔟 button is enabled.

| MOC Overvie            | ew X 🔇 testproj X     | 🔇 MoC Admin | ×                | 目 く ? 尊     |
|------------------------|-----------------------|-------------|------------------|-------------|
| Management of Change A | < test name           |             |                  |             |
| Exceptions             | Definition            |             | Checklist        | ltems       |
| Questions              | + ôô                  |             |                  | [1]         |
| Checklists             | CHECKLIST QUESTION ID | ANSWER      | EXCEPTION ID     | ENTY_KEY    |
|                        | Electrical load       | Yes         | Electrical load  | 64262144021 |
|                        | Energy Source         | Yes         | Energy Source    | 64262144009 |
|                        | Exit Route            | Yes         | Exit Route       | 64262144016 |
|                        | Heights               | Yes         | Heights          | 64262144024 |
|                        | Lock out Tag out      | Yes         | Lock out Tag out | 64262144011 |
|                        |                       | Yes         | Material Storage | 64262144017 |

4. Select 🛄

The **Unlink Checklist Question** dialog box appears, asking you to confirm that you want to unlink the selected Questions from the Checklist.

5. Select **OK**.

The selected Questions are unlinked from the Checklist and the updated list of Questions appears in the section.

## **Delete a Checklist**

#### Procedure

- 1. Access the **Application Settings** page.
- 2. Select Management of Change.
- 3. In the left pane, select **Checklists**.

The **Checklists** workspace appears, displaying a list of Checklists that are available in the database.

| III 🛓 🕢 MoC Admin        | ×                                   | r q         | ? 🕸  |
|--------------------------|-------------------------------------|-------------|------|
| Management of Change A 🔇 | Checklists                          |             |      |
| Exceptions               | + &                                 |             | [11] |
| Questions                | CHECKLIST ID Standard MOC Checklist | CHANGE TYPE |      |
| Checklists               | Test                                |             |      |
|                          |                                     |             |      |

4. In the row for each Checklist that you want to delete, select the check box.

In the upper-right corner of the workspace, the 🔟 button is enabled.

5. Select 🛄.

The **Delete MOC Checklist** dialog box appears, asking you to confirm that you want to delete the selected Checklist.

**Note:** Deleting Checklists in the administrative settings for MOC will not affect the Change Projects that have used the Checklists prior to deletion.

#### 6. Select **OK**.

The selected Checklist is deleted and the updated list of Checklists appears in the workspace.

# Chapter 9

# Reference

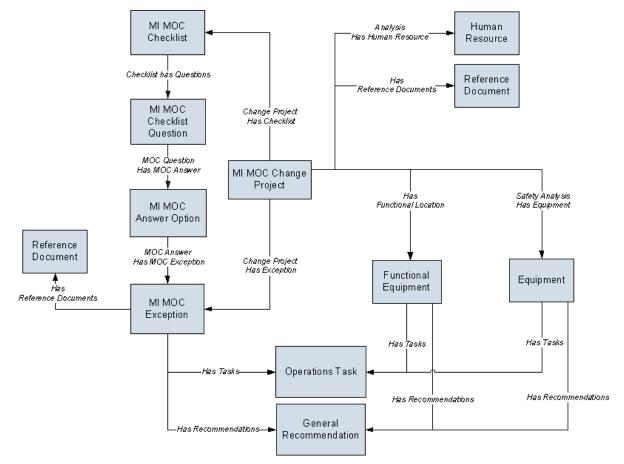
### **Topics:**

- General Reference
- Family Field Descriptions
- Catalog Items

## **General Reference**

## **MoC Data Model**

The following diagram shows how the families used in Management of Change are related to one another.



**Note:** In the diagram, boxes represent entity families and arrows represent relationship families that are configured in the baseline database. You can determine the direction of each relationship definition from the direction of the arrow head: the box from which the arrow originates is the predecessor, and the box to which the arrow head points is the successor.

The following records in MOC are created in the Application Settings for MOC and copies of these records are used in Change Projects:

- MI MOC Exception
- MI MOC Answer Option
- MI MOC Checklist Question
- MI MOC Checklist

A Change Project can be linked to:

- One or more Equipments or Functional Locations.
- One or more Human Resource records.
- One or more Reference Documents.

- One or more Checklists.
- One or more Exceptions.

Each Exception can be linked to one or more General Recommendations.

## **MoC Security Groups**

The following table lists the baseline Security Groups available for users within this module, as well as the baseline Roles to which those Security Groups are assigned.

**Important:** Assigning a Security User to a Role grants that user the privileges associated with all of the Security Groups that are assigned to that Role. To avoid granting a Security User unintended privileges, before assigning a Security User to a Role, be sure to review all of the privileges associated with the Security Groups assigned to that Role. Also, be aware that additional Roles, as well as Security Groups assigned to existing Roles, can be added via Security Manager.

| Security Group       | Roles                |
|----------------------|----------------------|
| MI MOC Administrator | MI MOC Administrator |
|                      | MI Safety Admin      |
| MI MOC Approver      | MI MOC Approver      |
|                      | MI Safety Power      |
| MI MOC User          | MI MOC User          |
|                      | MI Safety User       |
| MI MOC Viewer        | MI MOC Viewer        |
|                      | MI Safety User       |
|                      | MI Safety Power      |
|                      | MI Safety Admin      |
|                      | MI APM Viewer        |

The baseline family-level privileges that exist for these Security Groups are summarized in the following table.

| Family                       | MI MOC<br>Administrator         | MI MOC Approver | MI MOC User                     | MI MOC Viewer |
|------------------------------|---------------------------------|-----------------|---------------------------------|---------------|
| Entity Families              | •                               | •               | •                               | •             |
| General<br>Recommendation    | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| MI MOC Answer Option         | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| MI MOC Change Project        | View, Update, Insert,<br>Delete | View, Update    | View, Update, Insert,<br>Delete | View          |
| MI MOC Checklist             | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| MI MOC Checklist<br>Question | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |

| Family                           | MI MOC<br>Administrator         | MI MOC Approver | MI MOC User                     | MI MOC Viewer |
|----------------------------------|---------------------------------|-----------------|---------------------------------|---------------|
| MI MOC Exception                 | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Operation Tasks                  | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Reference Document               | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Relationship Families            |                                 |                 |                                 |               |
| Analysis Has Human<br>Resource   | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Change Project Has<br>Checklist  | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Change Project Has<br>Elements   | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Change Project Has<br>Exception  | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Checklist has Questions          | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Has Functional Location          | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Has Reference<br>Documents       | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Has Tasks                        | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| MOC Answer Has MOC<br>Exception  | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| MOC Question Has<br>MOC Answer   | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Has Recommendations              | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |
| Safety Analysis Has<br>Equipment | View, Update, Insert,<br>Delete | View            | View, Update, Insert,<br>Delete | View          |

## **MoC URLs**

There is one URL route associated with MOC: **asset-safety/moc**. The following table describes the various paths that build on the route, and the elements that you can specify for each.

**Tip:** For more information, refer to the URLs section of the documentation.

| Element   | Description  | Accepted Value(s)  | Notes   |
|---|--|--|---|
| asset-safety/moc/ad   | min: Displays the MoC Admin page.  |  |   |
| asset-safety/moc/ove  | erview: Displays the MOC Overview pag  | e.   |   |
| asset-safety/moc/ <e< td=""><td>ntityKey&gt;: Displays the Project Summar</td><td><b>y</b> workspace of the Change Proje</td><td>ect with the specified Entity Key.</td></e<> | ntityKey>: Displays the Project Summar   | <b>y</b> workspace of the Change Proje                                       | ect with the specified Entity Key.  |
| <entitykey></entitykey>   | Specifies the Entity Key of the<br>Change Project that you want<br>to access.  | Any numeric Entity Key that<br>corresponds to an existing<br>Change Project. | This value is required to access<br>an existing Change Project and<br>its related records (i.e.,<br>Checklists, Exceptions, and<br>Changed Elements) from a<br>URL. |
| asset-safety/moc/over<br>asset specified by the A   | erview/ <assetkey>: Displays the MOC C<br/>Asset Key.</assetkey>   | <b>Dverview</b> page. The information  | on the page is filtered by the  |
| <assetkey></assetkey>   | Specifies the Asset Key of the<br>asset based on which you<br>want to filter information on<br>the <b>MOC Overview</b> page. | Any numeric Asset Key that<br>corresponds to an existing<br>asset.           | None  |

| Example URL               | Destination                       |
|---------------------------|-----------------------------------|
| asset-safety/moc/2996501  | The Project Summary               |
|                           | workspace of the Change           |
|                           | Project with the Entity Key       |
|                           | 2996501.                          |
| sset-safety/moc/overview/ | The <b>MOC Overview</b> page      |
| 4251832823                | appears. In the <b>Change</b>     |
|                           | Projects and Tasks section, the   |
|                           | list of Change Projects and tasks |
|                           | associated with the asset whose   |
|                           | Asset Key is 64251832823 and      |
|                           | with all assets within the        |
|                           | hierarchy level of the specified  |
|                           | asset appears. The results on     |
|                           | the MOC Overview Graph and        |
|                           | the MOC Calendar are also         |
|                           | filtered based on the specified   |
|                           | Asset Key.                        |

# MoC System Code Tables

The following table lists the System Code Tables that are used by MOC.

| Table ID                   | Table Description            | Function  |
|----------------------------|------------------------------|---|
| MI MOC ANS OPT             | MOC Answer Options           | <ul> <li>Populates the Answer field in MI MOC<br/>Answer Option records. By default, this<br/>table contains the following values:</li> <li>Yes</li> <li>No</li> <li>NA</li> <li>A user with administrator privileges can<br/>modify this table to include additional<br/>answer options.</li> </ul>  |
| MI EXCEPTIONS STATE        | Exception States             | <ul> <li>Populates the Status field in the MI MOC</li> <li>Exception records. By default, this table contains the following values:</li> <li>Not Started</li> <li>In Progress</li> <li>Complete</li> </ul>  |
| MI Change Project Duration | Change Project Duration Type | <ul> <li>Populates the Change Duration field in the MI MOC Change Project records. By default, this table contains the following values:</li> <li>Permanent</li> <li>Temporary</li> </ul>   |
| MI Change Project Type     | Change Project Type          | <ul> <li>Populates the Change Type field in the MI<br/>MOC Change Project records. By default,<br/>this table contains the following values:</li> <li>Temporary</li> <li>Permanent</li> <li>Minor Instrument Change</li> <li>Personnel</li> <li>A user with administrator privileges can<br/>modify this table to include additional<br/>change types.</li> </ul> |

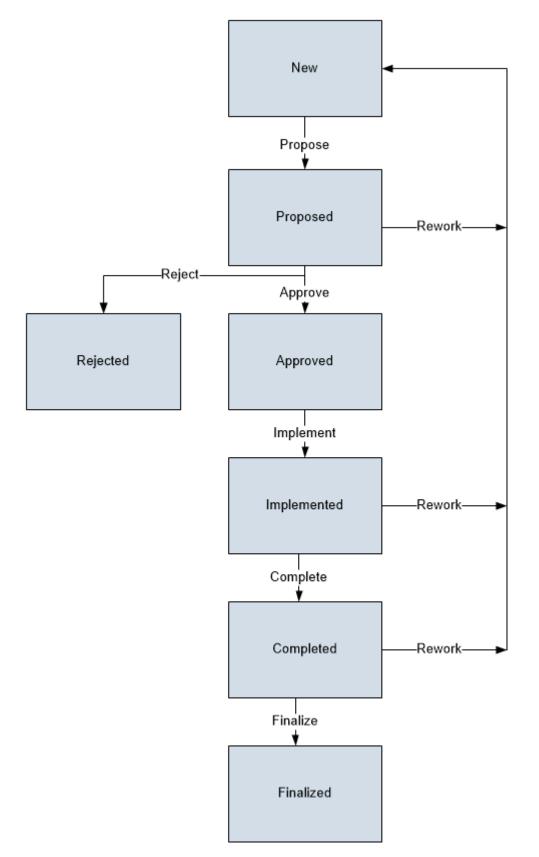
## **MoC State Management for Change Projects**

When you are working with Change Projects, you can use state management to track the progress of the projects. When you access a Change Project, options to manage the states for the project appear. You can follow the standard procedure to manage record states. The following baseline record states are configured for the Change Project family:

- New: Indicates that a new Change Project is created.
- Proposed: Indicates that the Change Project is proposed for review and approval.
- Approved: Indicates that the Change Project has been approved and is ready to be implemented.
- Rejected: Indicates that the Change Project has been rejected and the change will not be implemented.
- Implemented: Indicates that all the tasks created for the Change Project have been completed and the Change Project is ready to be approved for completion.

- Completed: Indicates that the results of all the tasks associated with the Change Project have been reviewed and approved for completion. For a temporary change, if you want to change the date up to which the changes will be valid, you can select the Rework operation to modify the date in the Change Valid Until field of the Change Project.
- Finalized: Indicates that the change has been delivered successfully and all affected personnel have been communicated about the change.

Illustration of Change Project State Configuration



#### **State Configuration Roles**

The following table lists the baseline states, the operation that can be performed on each state, and the State Configuration Roles assigned to each state:

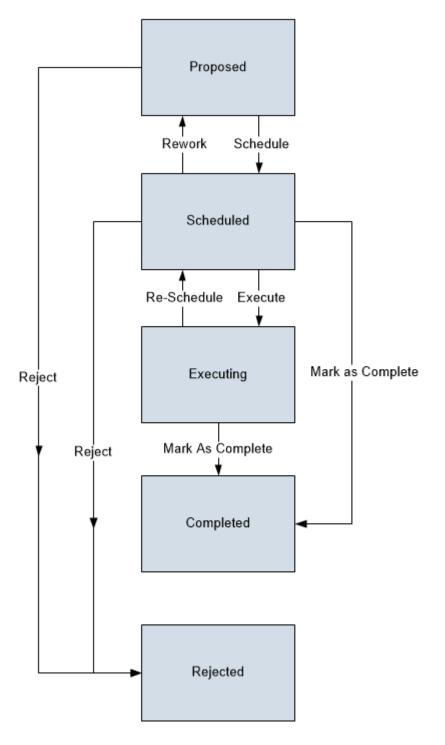
| State       | Operation | User Role   |  |
|-------------|-----------|---|--|
| New         | Propose   | MI Safety User, MI Safety Admin                     |  |
| Proposed    | Rework    | MI Safety Power, MI Safety Admin                    |  |
|             | Approve   |   |  |
|             | Reject    | •   |  |
| Rejected    | None      | None  |  |
| Approved    | Implement | MI Safety User, MI Safety Power, MI Safety<br>Admin |  |
| Implemented | Rework    | MI Safety Power, MI Safety Admin                    |  |
|             | Complete  |   |  |
| Completed   | Rework    | MI Safety Power, MI Safety Admin                    |  |
| Completed   | Finalize  | -<br>-  |  |
| Finalized   | None      | None  |  |

## **About State Management for Tasks**

When you are working with tasks in MOC, you can use state management to facilitate a workflow that tracks the progress of the task. When you access a task, options to manage the states for the task appear. You can follow the standard procedure to manage record states. The following record states are configured for the Operations Task family:

- Proposed: Indicates that the task is proposed to the appropriate user for review and approval.
- Scheduled: Indicates that the task has been approved and scheduled for execution. If you want to modify the task further before approving, you must select the Rework operation to change the state of the task to Proposed.
- Rejected: Indicates that the task has been rejected and will not be implemented.
- Executing: Indicates that the user to whom the task has been assigned has started work for the task. If you want to re-schedule the task, you must select the Re-schedule operation to change the state of the task to Scheduled.
- Completed: Indicates that the assigned user has completed the task.

#### Illustration of Task State Configuration



#### **State Configuration Roles**

The following table lists the default states, the operations that can be performed on each state, and the State Configuration Roles assigned to each state:

| State     | Operation        | User Role   |
|-----------|------------------|---|
| Proposed  | Schedule         | MI Safety Admin, MI Safety Power, MI<br>Safety User |
|           | Reject           | MI Safety Admin, MI Safety Power                    |
| Scheduled | Rework           | MI Safety Admin, MI Safety Power                    |
|           | Execute          | MI Safety Admin, MI Safety Power, MI<br>Safety User |
|           | Mark as Complete | MI Safety Admin, MI Safety Power, MI<br>Safety User |
| Rejected  | None             | None  |
| Executing | Re-Schedule      | MI Safety Admin, MI Safety Power, MI<br>Safety User |
|           | Mark as Complete | MI Safety Admin, MI Safety Power, MI<br>Safety User |
| Completed | None             | None  |

## **MoC Site Filtering**

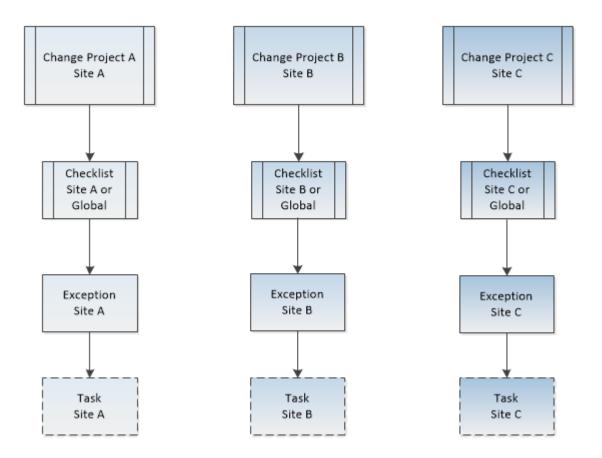
Site filtering in MOC is achieved by specifying a site on the datasheet of the Change Project and that site assignment is applied to all the related records. Users must have privileges for the relevant site to access records for the specified site. Users can be assigned to one or many sites. They will be able to see only the records that are assigned to their site(s) or those that are global records.

Site filtering is enabled for the following families:

- **MI MOC Change Project:** When you create a Change Project, you can assign it to any site. After you save the changes, you cannot modify the site of the Change Project. You can link assets to a Change Project only if the asset is a Global record or a record that belongs to the same site as that of the Change Project. Also, you can associate only Global records or records that belong to the same site as that of the Change Project, as changed elements to the project.
- **MI MOC Checklist:** When you create a Checklist, you can assign it to any site. After you save the changes, you cannot modify the site for the Checklist. You can add a Checklist to a Change Project, only if the Checklist belongs to the same site as that of the Change Project. If you associate a Change Project with a copy of the Checklist whose site is set to Global, then the copy of the Checklist and all the records associated with it will inherit the site of the Change Project.
- **MI MOC Checklist Question:** When you create a Question, you can assign it to any site. The Answer Options that you create in a Question will inherit the site of the Question. You can add a Question to a Checklist only if the site assigned to the Question and the Checklist are the same.
- **MI MOC Exception:** When you create an Exception, you can assign it to any site. After you save the changes, you cannot modify the site for the Exception. You can associate an Answer Option in a Question with an Exception only if the site assigned to the Exception and to the Question are the same.
- **Operations Task:** The tasks created for Exceptions associated with the Change Project will inherit the site from the associated Change Project.

#### Illustration

The following image shows an illustration of site filtering in MOC:



Users assigned to Site A will be able to view data related to Site A or Global data. Users assigned to Site A and Site B will be able to view data related to Site A, Site B, and Global. Users assigned to Site A, Site B, and Site C will be able to view data related to Site A, Site B, Site C, and Global.

#### Example

Consider an organization that has three sites, Site X, Site Y, and Site Z and contains the following records:

- Change Project 1: Assigned to Site X
- Change Project 2: Assigned to Site Y
- Change Project 3: Assigned to Site Z
- Checklist 1: Assigned to Site X
- Checklist 2: Assigned to Site Y
- Checklist 3: Assigned to Global

#### Scenario 1: User assigned to only Site X

When this user accesses the **MOC Overview** page, the user will be able to see the records that are assigned to Site X and Global:

- Change Project 1: Assigned to Site X
- Checklist 1: Assigned to Site X
- Checklist 3: Assigned to Global

To Change Project 1, the user can add Checklists that belong to Site X and Global.

Suppose that the user adds Checklist 3 to Change Project 1, then Checklist 3\_1 is created as a copy of Checklist 3 and associated with Change Project 1. The site assigned to Checklist 3\_1 will be Site X. The copies of Questions and Exceptions created will also be assigned to Site X. The tasks that the user creates for Change Project 1 will also belong to Site X.

#### Scenario 2: User assigned to both Site X and Site Y

When this user accesses the **MOC Overview** page, the user will be able to see the records that are assigned to Site X, Site Y, and Global:

- Change Project 1: Assigned to Site X
- Change Project 2: Assigned to Site Y
- Checklist 1: Assigned to Site X
- Checklist 2: Assigned to Site Y
- Checklist 3: Assigned to Global

The user will also be able to access and manage the Checklists, Exceptions, and tasks associated with Change Project 1 and Change Project 2.

The user can add only Checklist 1 and Checklist 3 to Change Project 1 since the project belongs to Site X. Similarly, the user can add only Checklist 2 and Checklist 3 to Change Project 2, which belongs to Site Y.

#### Scenario 3: Super User

When this user accesses the **MOC Overview** page, the user will be able to view the records that are assigned to any of the sites:

- Change Project 1: Assigned to Site X
- Change Project 2: Assigned to Site Y
- Change Project 3: Assigned to Site Z
- Checklist 1: Assigned to Site X
- Checklist 2: Assigned to Site Y
- Checklist 3: Assigned to Global

The user will also be able to access and manage the Checklists, Exceptions, and tasks associated with Change Project 1, Change Project 2, and Change Project 3.

The user can add only Checklist 1 and Checklist 3 to Change Project 1 since the project belongs to Site X. Similarly, the user can add only Checklist 2 and Checklist 3 to Change Project 2, which belongs to Site Y. The user can add only Checklist 3 to Change Project 3.

# **Family Field Descriptions**

## **MI MOC Change Project Records**

MI MOC Change Project records store information about the Change Project. This topic provides an alphabetical list and description of the fields that exist for the MI MOC Change Project family and appear on the MI MOC Change Project datasheet. The information in the table reflects the baseline state and behavior of these fields.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site, and will only be accessible to users who are assigned to the same site and have the

appropriate license and family privileges. For more information, refer to the Sites section of the documentation.

| Field              | Data Type | Description   | Behavior and Usage   |
|--------------------|-----------|---|--|
| Change Duration    | Character | Indicates whether the change<br>is a permanent change or a<br>temporary change.                       | This field appears as a list that<br>is populated by the<br>MI_Change_Project_Duration<br>System Code Table.   |
| Change Project ID  | Character | The identification for the Change Project.  | This field is required. You must<br>enter a unique value in this<br>field.   |
| Change Type        | Character | Indicates the type of change<br>managed by the Change<br>Project.                                     | This field appears as a list that<br>is populated by the<br>MI_Change_Project_Type<br>System Code Table.   |
| Change Valid Until | Date      | The date up to when the change is valid.  | This field is enabled only if the<br>value in the Change Duration<br>field is Temporary.<br>You can select a date in this<br>field.                    |
| Description        | Character | A description for the Change<br>Project.  | You can enter a value<br>manually.   |
| End Date           | Date      | Indicates the date when the<br>Change Project was<br>completed.                                       | You can select a date in this<br>field. The date that you select<br>in this field must be later than<br>the date specified in the Start<br>Date field. |
| Owner              | Character | The name of the team<br>member who is responsible for<br>managing the Change Project.                 | You can enter a value<br>manually.   |
| Purpose            | Character | A description of the goal of the Change Project.  | You can enter a value<br>manually.   |
| Scope              | Character | A description of the intended<br>scope of change to be<br>accomplished through the<br>Change Project. | You can enter a value<br>manually.   |
| Start Date         | Date      | Indicates the date when the Change Project was started.   | By default, this field contains<br>the date on which the Change<br>Project was created. You can<br>modify the date.                                    |

## **MI MOC Checklist Records**

MI MOC Checklist records store information about Checklists associated with Change Projects. The MI MOC Checklist family is also used to store information about the Checklists that you created using the Application Settings for MOC. This topic provides an alphabetical list and description of the fields that

exist for the MI MOC Checklist family and appear on the MI MOC Checklist datasheet. The information in the table reflects the baseline state and behavior of these fields.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site, and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the Sites section of the documentation.

| Field            | Data Type | Description  | Behavior and Usage  |
|------------------|-----------|--|---|
| Checklist ID     | Character | The identification for the Checklist.  | This field is automatically populated with a unique value.  |
| Description      | Character | The description of the<br>Checklist.   | This field is populated with the<br>value in the Description field of<br>the MI MOC Checklist record<br>whose copy is being created.  |
| Is Admin Setting | Boolean   | Indicates whether the<br>Checklist represents a record<br>created in the Application<br>Setting. | This field does not appear on<br>the datasheet.<br>This field is True if you create<br>the record using the<br>Application Settings for MOC.<br>This field is False if APM<br>automatically created the<br>record as a copy of the<br>Checklist that you created. |

## **MI MOC Checklist Question Records**

MI MOC Checklist Question records store information about the Checklist Questions that are associated with a Checklist of a Change Project. When you add a Checklist to a Change Project, MI MOC Checklist Question records are created automatically by copying the Checklist Question records that you created in the application Settings for MOC. This topic provides an alphabetical list and description of the fields that exist for the MI MOC Checklist Question family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

| Field                 | Data Type | Description                                    | Behavior and Usage   |
|-----------------------|-----------|--|--|
| Checklist Question ID | Character | The identification for the Checklist Question. | This field is automatically populated with a unique value.   |
| Description           | Character | The text of the Checklist<br>Question.         | This field is populated with the<br>value in the Description field of<br>the MI MOC Checklist<br>Question record whose copy is<br>being created. |

| Field            | Data Type | Description   | Behavior and Usage   |
|------------------|-----------|---|--|
| Is Admin Setting | Boolean   | Indicates whether the<br>Checklist Question represents<br>a record created in the<br>Application Setting. | This field does not appear on<br>the datasheet.<br>This field is True if you created<br>the record using the<br>Application Settings for MOC.<br>This field is False if APM<br>automatically created the<br>record as a copy of the<br>Checklist Question that you<br>created. |
| Question Text    | Character | The text for the Checklist<br>Question.   | This field is populated with the<br>value in the Question Text field<br>of the MI MOC Checklist<br>Question record whose copy is<br>being created.   |

## **MI MOC Answer Option Records**

MI MOC Answer Option records store information about an Answer Option for a Question and the corresponding Exception that must be created for the Answer Option. When MI MOC Checklist Question records are created by copying the Checklist Question records that you created in the Application Settings for MOC for the Checklist, the associated Answer Option records are also copied. This topic provides an alphabetical list and description of the fields that exist for the MI MOC Answer Option family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

| Field        | Data Type | Description  | Behavior and Usage   |
|--------------|-----------|--|--|
| Answer       | Character | Identifies the response that triggers an Exception.  | This field is populated with the<br>value in the Answer field of the<br>MI MOC Answer Option record<br>whose copy is being created.          |
| Exception ID | Character | The identification of the<br>Exception that will be<br>triggered on selection of the<br>response indicated in the<br>Answer field. | This field is populated with the<br>value in the Exception ID field<br>of the MI MOC Answer Option<br>record whose copy is being<br>created. |

| Field            | Data Type | Description  | Behavior and Usage   |
|------------------|-----------|--|--|
| Exception Key    | Numeric   | The Entity Key of the<br>Exception indicated in the<br>Exception ID field.                           | This field is populated with the<br>value in the Exception Key field<br>of the MI MOC Answer Option<br>record whose copy is being<br>created.<br>This field does not appear on<br>the datasheet.   |
| Is Admin Setting | Boolean   | Indicates whether the Answer<br>Option represents a record<br>created in the Application<br>Setting. | This field does not appear on<br>the datasheet.<br>This field is True if you created<br>the record using the<br>Application Settings for MOC.<br>This field is False if APM<br>automatically created the<br>record as a copy of the Answer<br>Option that you created. |

## **MI MOC Exception Records**

MI MOC Exception records store information about the Exceptions. For a Checklist added to the Change Project, when the selected Answer Option for a Question is associated with an Exception, a copy of the Exceptions created in MOC Application Settings is created. This topic provides an alphabetical list and description of the fields that exist for the MI MOC Exception family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

| Field          | Data Type | Description                                 | Behavior and Usage   |
|----------------|-----------|---|--|
| Description    | Character | Contains a description about the Exception. | This field is populated with the<br>value in the Description field of<br>the MI MOC Exception record<br>whose copy is being created.       |
| Exception ID   | Character | The identification of the Exception.        | This field is automatically populated with a unique value.   |
| Exception Type | Character | The type of Exception.                      | This field is populated with the<br>value in the Exception Type<br>field of the MI MOC Exception<br>record whose copy is being<br>created. |

| Field            | Data Type | Description  | Behavior and Usage   |
|------------------|-----------|--|--|
| Is Admin Setting | Boolean   | Indicates whether the<br>Exception represents a record<br>created in the Application<br>Setting. | This field does not appear on<br>the datasheet.<br>This field is True if you created<br>the record using the<br>Application Settings for<br>Management of Change.<br>This field is False if APM<br>automatically created the<br>record as a copy of the<br>Exception that you created. |
| Status           | Character | Indicates the status of the exception.   | This field appears as a list that<br>is populated by the<br>MI_EXCEPTIONS_STATE<br>System Code Table.  |

## **Operations Task Records**

Operations Task records store information about the tasks that are associated with Exceptions in a Change Project. This topic provides an alphabetical list and description of the fields that exist for the Operations Task family. The information in the table reflects the baseline state and behavior of the fields. This list is not comprehensive.

| Field            | Data Type | Description  | Behavior and Usage  |
|------------------|-----------|--|---|
| Asset ID         | Character | The identification of the Asset<br>to which the task is<br>associated. | You can search and select an asset to associate with the task.  |
| Desired Interval | Numeric   | A number indicating how often<br>the task should be performed.         | By default, this field contains<br>the value 0.<br>You must enter a value<br>between the Min Interval and<br>Max Interval values.<br>The value in this field is used in<br>calculating the value in the<br>Next Date field. |

| Field                | Data Type | Description   | Behavior and Usage   |
|----------------------|-----------|---|--|
| Desired Interval UOM | Character | The unit of measurement for<br>the value in the Desired<br>Interval field.  | <ul> <li>This field contains a list of the following values:</li> <li>Days (DAYS)</li> <li>Months (MON)</li> <li>Weeks (WEEKS)</li> <li>Years (YEARS)</li> <li>By default, the value Months (MON) is selected.</li> <li>The units that you select for the desired interval are also applicable to the Max Interval UOM and Min Interval UOM fields.</li> </ul>   |
| Last Date            | Date      | Date on which the task is completed.  | By default, this field contains<br>the date on which the task<br>was created. You can,<br>however, modify the date.<br>The date that you select in this<br>field is used in determining the<br>values in the Next Date, Min<br>Date, and Max Date fields.  |
| Max Date             | Date      | The date by which the task<br>must be performed. You can<br>compare this date with the<br>current date to determine by<br>the overdue period for the<br>task. | This field is disabled and<br>populated automatically with<br>a value calculated as follows:<br>Max Date = Last Date + Max<br>Interval   |
| Max Interval         | Numeric   | The maximum interval to perform the task.   | If the value in this field is 0,<br>and you entered a value in the<br>Desired Interval field, this field<br>is automatically populated<br>with the value in the Desired<br>Interval field.<br>If the value you enter in this<br>field is lesser than the value in<br>the Desired Interval field, an<br>error message appears,<br>indicating that the maximum<br>interval must be greater than<br>the desired interval. |
| Max Interval UOM     | Character | The unit of measurement for<br>the value in the Max Interval<br>field.  | This field is disabled and<br>populated automatically with<br>the value in the Desired<br>Interval UOM field.  |

| Field            | Data Type | Description  | Behavior and Usage   |
|------------------|-----------|--|--|
| Min Date         | Date      | The earliest date by which you<br>must perform the task next<br>time.  | This field is disabled and<br>populated automatically with<br>a value calculated as follows:   |
|                  |           |  | Min Date = Last Date + Min<br>Interval   |
| Min Interval     | Numeric   | The minimum interval to perform the task next time.                    | By default, this field contains the value 0.   |
|                  |           |  | You must enter a value lesser<br>than the value in the Max<br>Interval field.  |
| Min Interval UOM | Character | The unit of measurement for<br>the value in the Min Interval<br>field. | This field is disabled and<br>populated automatically with<br>the value in the Desired<br>Interval UOM field.  |
| Next Date        | Date      | The date when you must perform the task next time.                     | This field is disabled and calculated as follows:  |
|                  |           |  | Next Date = Last Date +<br>Desired Interval  |
| Reoccurring      | Boolean   | Indicates whether the task is recurring.                               | <ul> <li>This field contains a check box</li> <li>If the task is a recurring task, select the check box.</li> <li>If the task is a not a recurring task, clear the check box.</li> </ul> |
|                  |           |  | By default, this field is selected.  |
| Task Assigned To | Character | The team member to whom the task has been assigned.                    | This field contains a list of<br>Security Users who belong to<br>the Security Group MI MOC<br>User or the Security Role<br>MI Safety User.   |
| Task Description | Character | A description for the task.  | You can enter a value manually.  |
| Task Details     | Character | The details of the task.   | You can enter a value manually.  |
| Task ID          | Character | The identification of the task.  | This field is required. You must<br>enter a unique value in this<br>field.   |

| Field      | Data Type | Description                         | Behavior and Usage  |
|------------|-----------|-------------------------------------|---|
| Task State | Character | The state associated with the task. | This field is disabled and is<br>automatically populated with<br>the current state of the task. |
| Task Type  | Character | Indicates the type of task.         | This field contains a list of<br>values defined in the Task<br>Types records.                   |

# **Catalog Items**

## **Catalog Items**

The Management of Change Catalog folders contain queries, graphs, and reports that appear throughout MOC and display information contained in the records that make up a Change Project.

## **Queries Folder**

The Catalog folder \\Public\Meridium\Modules\Management Of Change\Queries contains the following items.

| Query Name                     | Behavior and Usage   |
|--------------------------------|--|
| All Change Projects            | Returns the list of Change Projects. This query is used when you select the <b>Change Projects</b> tab on the <b>MOC Overview</b> page.  |
| All MOC Tasks                  | Returns the list of Operations Tasks. This query is used when you select the <b>Tasks</b> tab on the <b>MOC Overview</b> page.   |
| All Exceptions Admin Query     | Returns the list of Exceptions available in the database. This query is used when you select the <b>Exceptions</b> tab on the <b>MoC Admin</b> page.   |
| Change Project Checklist Query | Returns the list of Checklists associated with a Change Project.<br>This query is used when you select the <b>Checklists</b> tab in the<br>pane to the left of the <b>Project Summary</b> workspace. |
| Checklist Questions Query      | Returns the list of Questions associated with a Checklist. This query is used when you select the <b>Checklist Items</b> tab for a Checklist on the <b>MoC Admin</b> page.                           |
| Exception Graph Query          | This query is used to create the <b>Exception Summary Graph</b> ,<br>which appears in the <b>Summary</b> section in the <b>Project</b><br><b>Summary</b> workspace of a Change Project.              |
| Exceptions Admin Query         | Returns the list of Exceptions assigned to a specific site. This query is used while creating Questions, when you search for an Exception to associate with an Answer Option.                        |
| MOC All Checklist Admin Query  | Returns the list of Checklists available in the database. This query is used when you select the <b>Checklists</b> tab on the <b>MoC Admin</b> page.   |

| Query Name                             | Behavior and Usage  |  |
|--|---|--|
| MOC Checklists Admin Query             | Returns the list of Checklists assigned to a specific site. This query is used when you add Checklists to a Change Project.   |  |
| MOC Questions Admin Query              | Returns the list of Checklist Questions available in the database. This query is used when you select the <b>Questions</b> tab on the <b>MoC Admin</b> page.  |  |
| Remaining Questions                    | Returns the list of Questions that belong to the same site as<br>that of the Checklist and that are not associated with any<br>Checklist. This query is used to display results on the <b>Select</b><br><b>questions to add</b> window, which appears when you add<br>Questions to a Checklist. |  |
| Task states count query                | This query is used to display the number of tasks in each state available for the Operations Task family.   |  |
| Task Summary Graph Query               | This query is used to create the <b>Task Summary Graph</b> , which appears in the <b>Summary</b> section in the <b>Project Summary</b> workspace of a Change Project.   |  |
| Answered Count by Checklist            | This query is used to calculate the number of Questions that are answered in a Checklist.   |  |
| Unanswered Count by Checklist          | This query is used to calculate the number of Questions that have not been answered in a Checklist.   |  |
| Exceptions Triggered by Change Project | This query is used to calculate the number of Exceptions that<br>have been created based on your responses in a Checklist for a<br>Change Project.  |  |

# **Graphs Folder**

The Catalog folder  $\$  Meridium Modules Management Of Change Graphs contains the following items.

| Graph Name              | Behavior and Usage  |
|-------------------------|---|
| Exception Summary Graph | <ul> <li>Displays the percentages of Exceptions in each of the following statuses:</li> <li>Not Started</li> <li>In Progress</li> <li>Complete</li> <li>The graph appears in the <b>Project Summary</b> workspace of a Change Project.</li> </ul> |
| Task Summary Graph      | Displays the percentages of Tasks in each state defined for the<br>Operations Task family.<br>The graph appears in the <b>Project Summary</b> workspace of a<br>Change Project.   |

## **Dashboards Folder**

The Catalog folder \\Public\Meridium\Modules\ManagementOfChange\Dashboards contains the following items:

| Name                   | Behavior and Usage   |
|------------------------|--|
| MOC Overview Dashboard | Displays the dashboard, which contains the MOC Overview<br>Graph and the MOC Calendar Query, for the Management of<br>Change module. |

The Catalog folder \\Public\Meridium\Modules\ManagementOfChange\Dashboards \Charts contains the following items:

| Graph Name         | Behavior and Usage  |
|--------------------|---|
| MOC Overview Graph | Displays the number of Change Projects in each year, for the<br>last five years including the current year, in the following<br>categories: |
|                    | <ul><li>Permanent</li><li>Temporary</li><li>Expired</li></ul>   |
|                    | The Change Projects are filtered based on the selected hierarchy level.   |

The Catalog folder \\Public\Meridium\Modules\ManagementOfChange\Dashboards \Queries contains the following items:

| Query Name                     | Behavior and Usage  |
|--------------------------------|---|
| MOC Calendar Query             | Returns the list of Operations Tasks available for the selected hierarchy level. This query is used to populate the tasks in the calendar that appears on the <b>MOC Overview</b> page.   |
| MOC Last 5 Years               | Returns the last five years including the current year.   |
| MOC Overview Chart Query       | This query is used to create the MOC Overview Graph, which appears on the <b>MOC Overview</b> page.   |
| MOC Permanent Projects         | Returns a list and number of permanent Change Projects.   |
| MOC Temporary Expired Projects | <ul> <li>Returns a list and number of temporary Change Projects that satisfy the following criteria:</li> <li>The value in the Change Valid Until field is less than the current date.</li> <li>The state of the project is not Finalized.</li> </ul> |
| MOC Temporary Projects         | Returns a list and number of temporary Change Projects whose value in the Change Valid Until field is greater than the current date.  |