European Inspection Management

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Chapter 1

Overview

Topics:

- About European Inspection Management

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About European Inspection Management

In Germany, inspections of pressure-containing assets are regulated by the industrial safety regulation (**BetrSichV**). The aim of this regulation is to guarantee the protection of employees' health and safety when using work equipment. With this module, GE Digital APM will provide a solution to help categorize the inspection activities according to Government Regulation based on pressure, volume, and fluid characteristics. According to this categorization, Compliance Management module of GE Digital APM can recommend applicable inspection task types along with recommended interval based on each asset type. This module will also help you identify the certification requirements of Inspectors. For example, ZÜS (Approved Inspection Body) and bP (Qualified Person) based on the criticality of the asset.

This functionality is fully integrated with Compliance Management module and Inspection Management module.

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Chapter 2

Configuration

Topics:

- About Configuring European Inspection Management
- Create Fluid Records
- Add Fluid Data
- Assign Assets to European Compliance Strategy Template
- Create Inspection Summary Reference Records

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About Configuring European Inspection Management

As an administrator, you must configure the following before an Inspector uses the data to create an inspection plan for an asset:

- Create Fluid Records
- Add Fluid Data
- Assign Assets to European Compliance Strategy Template

Create Fluid Records

About This Task

To create process fluid data in Fluid Data family, the fluid name must exist in the Integrity Fluid Name System Code Table. For more information on System Code Tables, refer to the System Codes and Tables documentation.

Procedure

1. Access the **System Codes and Tables** page.
2. From the System Tables section, select **Integrity Fluid Name**.
   The details of the Integrity Fluid Name table appears.
3. In the **System Code** subsection, select +.
   The **Create System Code** window appears.
4. In the **ID** box, enter the ID for the fluid.

   Note: The ID must be unique and must not be greater than 50 characters in length.
5. In the **Description** box, provide a description for the fluid.

   Note: The description must not exceed 255 characters in length.
6. Select one or more of the following options:
   - **Default**: Select the check box if you want this fluid to be the default fluid for the Integrity Fluid Name System Code Table.
   - **Active**: Select the check box if you want the System Code to be active.
7. Select **Save**.
   The new fluid is added and appears in the **System Code** subsection.

Next Steps

After you create the System Code for a fluid, do the following.

- Log out of the application and log back in, as the newly added fluid may not appear in the Fluid Data datasheet due to caching.
- Add Fluid Data to the fluid record.

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Add Fluid Data

Before You Begin

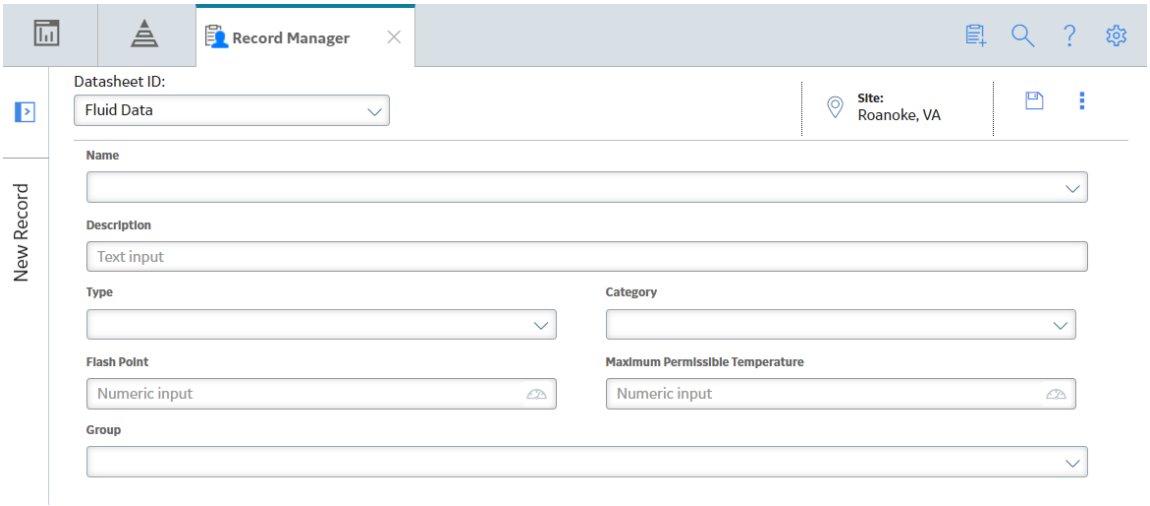
Ensure that the fluid, for which you want to add the fluid properties, is created in the Integrity Fluid Name System Code Table. For more information, refer to the Create Fluid Records on page 4 topic.

About This Task

Now, you must add fluid properties for the new fluid added using Record Manager. For more information on Record Manager, refer to the Record Manager documentation. Based on the properties that you define, a group is assigned to the fluid. For more information on the fluid group assignment, refer to Table F of Annexure - 1.

Procedure

1. Using Record Manager, create a record in the Fluid Data family.
   The Fluid Data datasheet appears.



2. Enter values in the available fields.
   Based on the values, a group is assigned to the fluid.

   Note: If required, you can change the default group assigned to the fluid.

3. Select .
   The fluid properties are added to the fluid record.

Assign Assets to European Compliance Strategy Template

About This Task

GE Digital APM provides eight Compliance Strategy Templates for the European Inspection Compliance. Each Compliance Strategy Template is linked to a policy that enables recommendation generation based on certain guidelines. You can assign assets to the European Inspection Compliance Strategy Templates. After the assets are linked to the compliance strategy templates, Inspection Plans can be created by the MI Compliance Analyst or the MI Compliance Approver. When the Inspection Plan creation is initiated, the policy selected in the Compliance Strategy Template is executed against the assets that are linked to the

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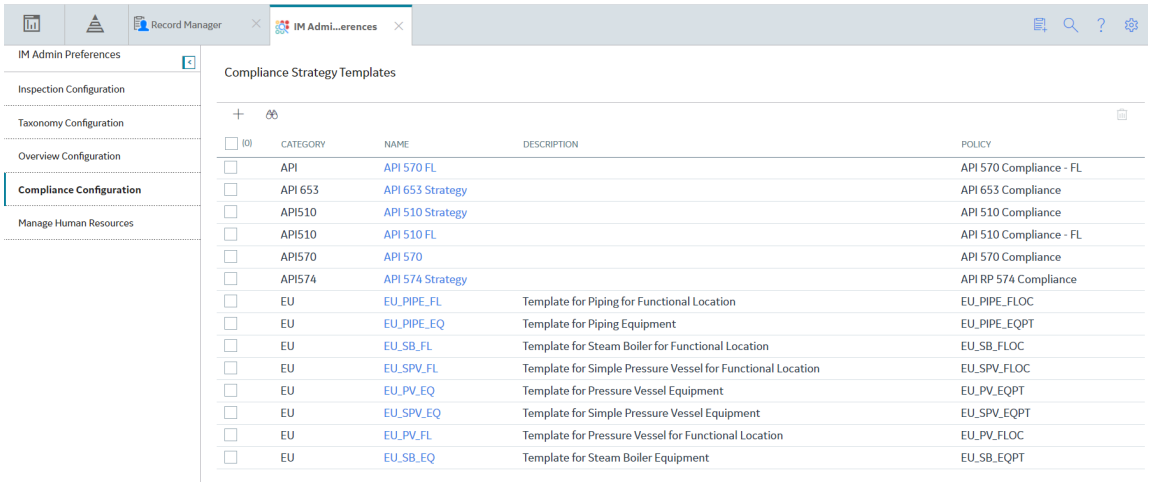
template. Creating Inspection plans for assets also generates recommendations according to the guidelines specified in the policy. When an asset is linked to multiple Compliance Strategy Templates, the policy for each template executes, and the generated recommendations are linked to the Inspection Plan and the asset.

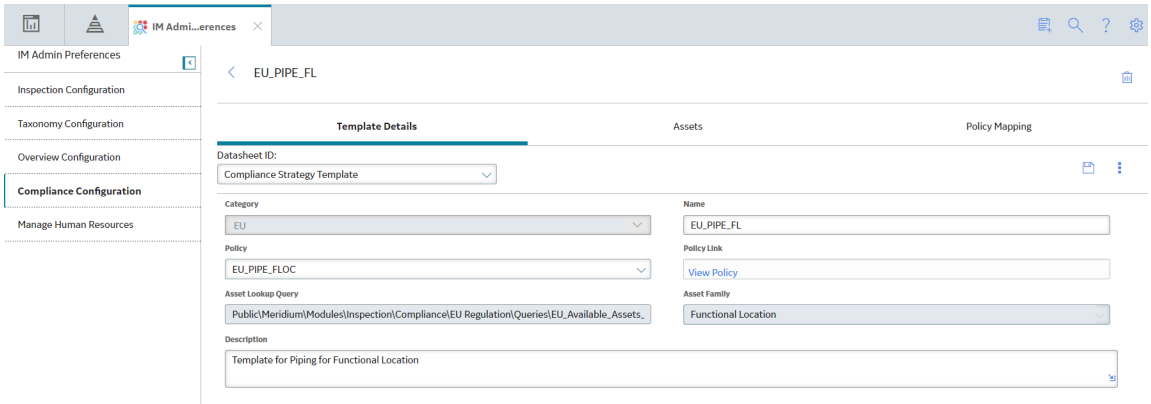
Procedure

1. Access the administrative features of Compliance Management.
   The **Compliance Strategy Templates** page appears, displaying all the available Compliance Strategy Templates.



2. Select one of the following Compliance Strategy Templates:
   - **EU_PIPE_FL**: Template for Piping for Functional Location
   - **EU_PIPE_EQ**: Template for Piping Equipment
   - **EU_SB_FL**: Template for Steam Boiler for Functional Location
   - **EU_SPV_FL**: Template for Simple Pressure Vessel for Functional Location
   - **EU_PV_EQ**: Template for Pressure Vessel Equipment
   - **EU_SPV_EQ**: Template for Simple Pressure Vessel Equipment
   - **EU_PV_FL**: Template for Pressure Vessel for Functional Location
   - **EU_SB_EQ**: Template for Steam Boiler Equipment

   The Compliance Strategy Template datasheet appears, displaying the **Template Details** section.



3. Select the **Assets** tab.
   The **Assets** section appears, displaying a list of assets associated with the selected Compliance Strategy Template.

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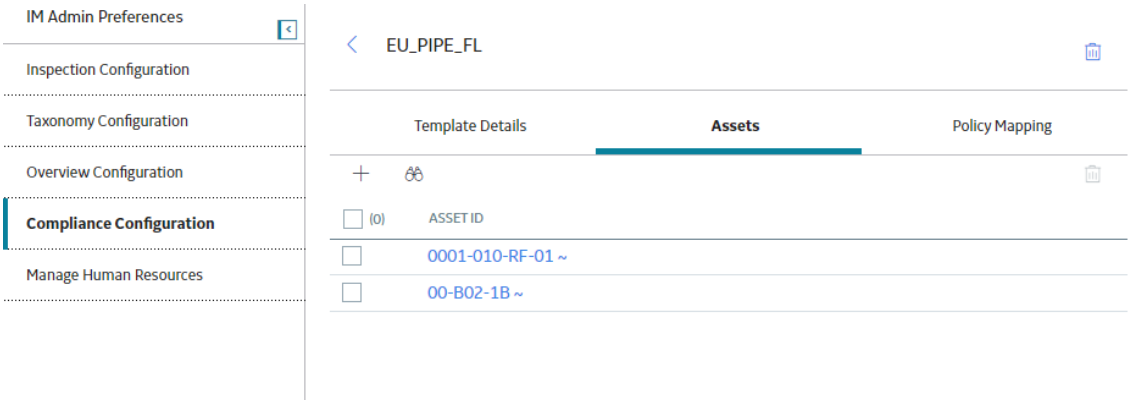

4. In the **Assets** section, select +, and then select one of the options listed in the following table:

Options	Subsequent steps to be performed
Add Assets via Query	a. In the **Add Assets to <Asset ID>** window, next to each query that you want to use to search for assets to add to the Compliance Strategy Template, select the check box, and then select **Next**. **Note:** • After you select the first query and assets, the query that you selected is stored in the Asset Lookup Query field of the Compliance Strategy Template record. Subsequent uses of the Add Asset via Query tool will use the previously selected query by default. Additionally, the results of this query are used in the **Assets without Templates** section of the **Compliance Management Overview** page. To use a different query in the Add Asset via Query tool, select **Previous**, and then select a query from the catalog. • When you use a query to select assets, one of the output fields of the query must be the entity key for an asset. The field in the query must be named ASSET_ENTY_KEY. • If you have already added assets to the Compliance Strategy Template, you can filter the query results using a WHERE parameter; the entity key of the template must be TEMP_ENTY_KEY. The **Select Assets** section appears, displaying the results of the query that you selected. b. In the **Select Assets** section, next to each asset that you want to add, select the check box. c. Select **Finish**.
Add Assets via Finder	a. In the **Hierarchy Finder** window, navigate to the asset that you want to add. b. Next to each asset that you want to add to the Compliance Strategy Template, select the +.

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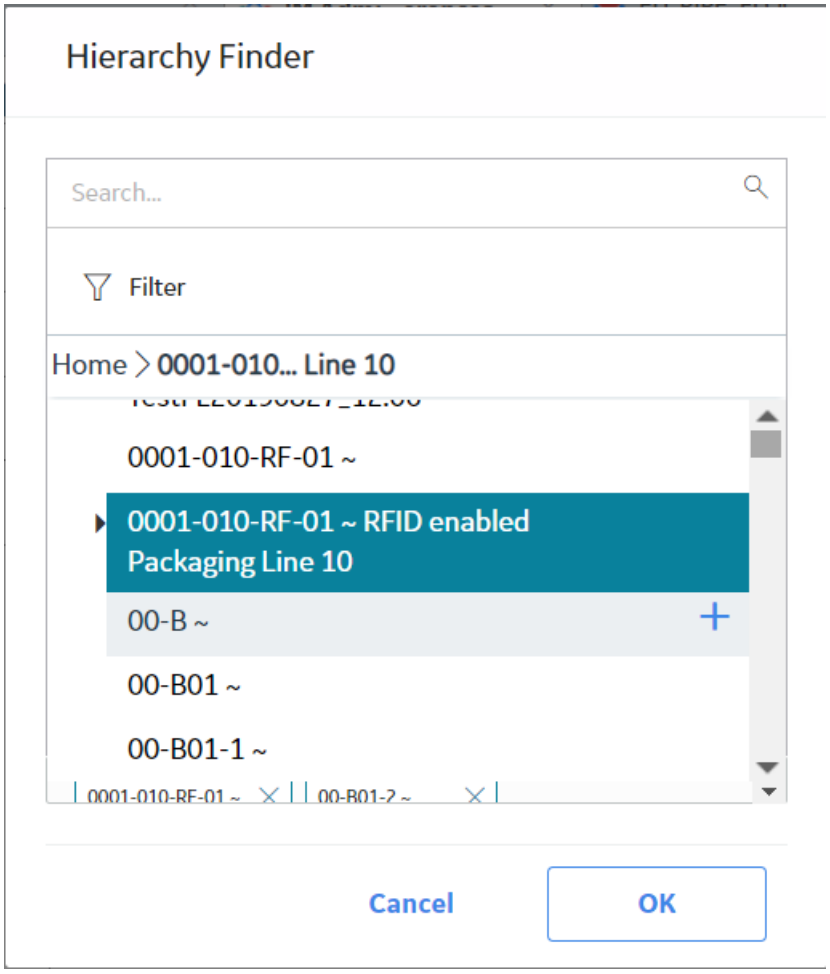
Options	Subsequent steps to be performed



The selected assets appear in the **Hierarchy Finder** window.

c. Select **OK**.

The selected assets appear in the **Assets** section.

Important:

- When you select assets to add, you must select assets that are in the same family as the defined asset family for the template. Additionally, you cannot add the same asset more than once.
- When you are adding assets to the Compliance Strategy Template, the assets listed in the Hierarchy Finder and the queries listed are site filtered.

Tip: If one or more assets cannot be added to the Compliance Strategy Template, an error message will appear. You can select the error to view a list of assets that were not successfully added to the template.

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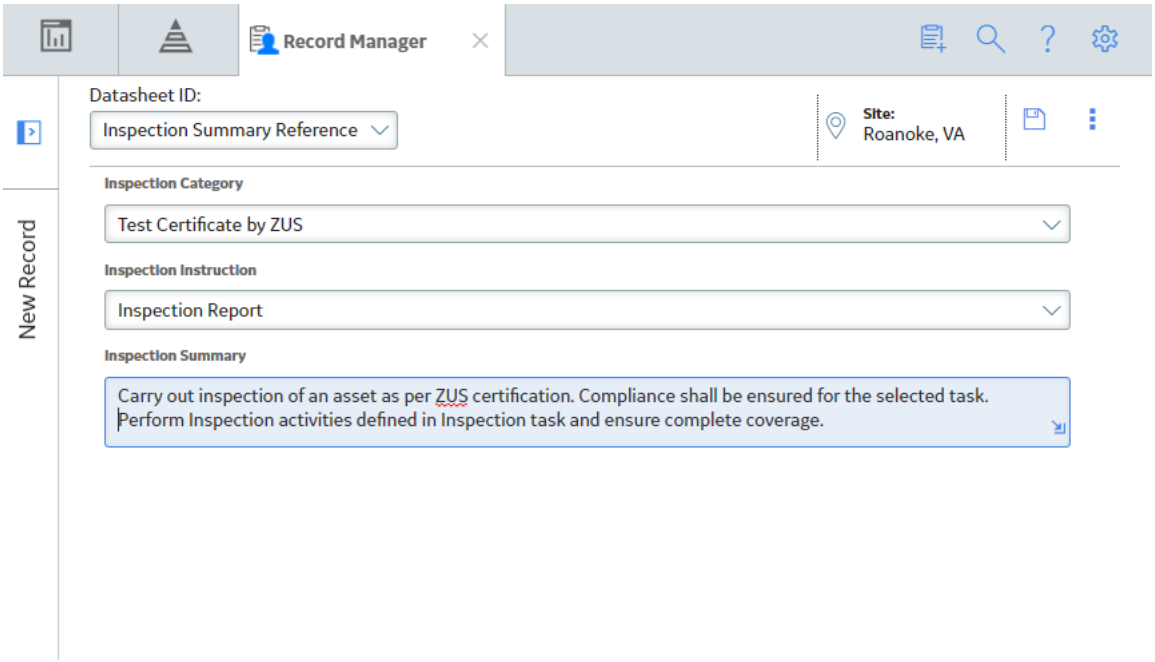
Create Inspection Summary Reference Records

About This Task

Inspection Summary Reference records are used to auto populate Inspection Summary field value for Inspection Event record using data from Inspection Summary Reference records. Inspection Summary Reference records can be added using Record Manager.

Procedure

1. Access Record Manager, select **Inspection Summary Reference** from the list.
   The Inspection Summary Reference datasheet appears.



2. In the datasheet, select or enter appropriate values in the available fields.
3. Select .
   The Inspection Summary Reference record is created.

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Chapter 3

Workflow

Topics:

- European Inspection Management Workflow
- Identify an Asset
- View or Modify Asset Technical Data
- Apply Suggested Compliance Strategy Templates for an Asset
- Create an Inspection Plan from the Compliance Management Overview Page
- Approve an Inspection Plan
- Implement an Inspection Plan
- Manage Inspection Tasks
- Reschedule an Inspection Task
- Manage Inspection Events

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European Inspection Management Workflow

About This Task

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

Procedure

1. Identify an Asset
2. View or Modify Asset Technical Data
3. Apply the Suggested Compliance Strategy templates for an Asset
4. Create an Inspection Plan
5. Approve an Inspection Plan
6. Implement an Inspection Plan
7. Manage Inspection Tasks on page 24
8. Reschedule an Inspection Task on page 26
9. Manage Inspection Events on page 28

Identify an Asset

This topic describes how to identify the certification requirements for the inspectors based on the criticality of the assets.

Procedure

1. Access the **Assets** page.
   The Asset Hierarchy appears in the **Assets** page.
2. In the **Hierarchy** section, in the Search box, enter the Asset ID for which you want to create or edit Asset Technical Data, and then press Enter.
   The asset appears in the **Hierarchy** section.
3. Select the Integrity tab, and then select **Inspection Assets** for Inspection Management to view and edit the Inspection Management Overview page for the related asset.

   Note: For better workflow walkthrough, we are using asset E0110A-097 from Asset Hierarchy as an example. The steps in the below workflow are based on the E0110A-097 asset.

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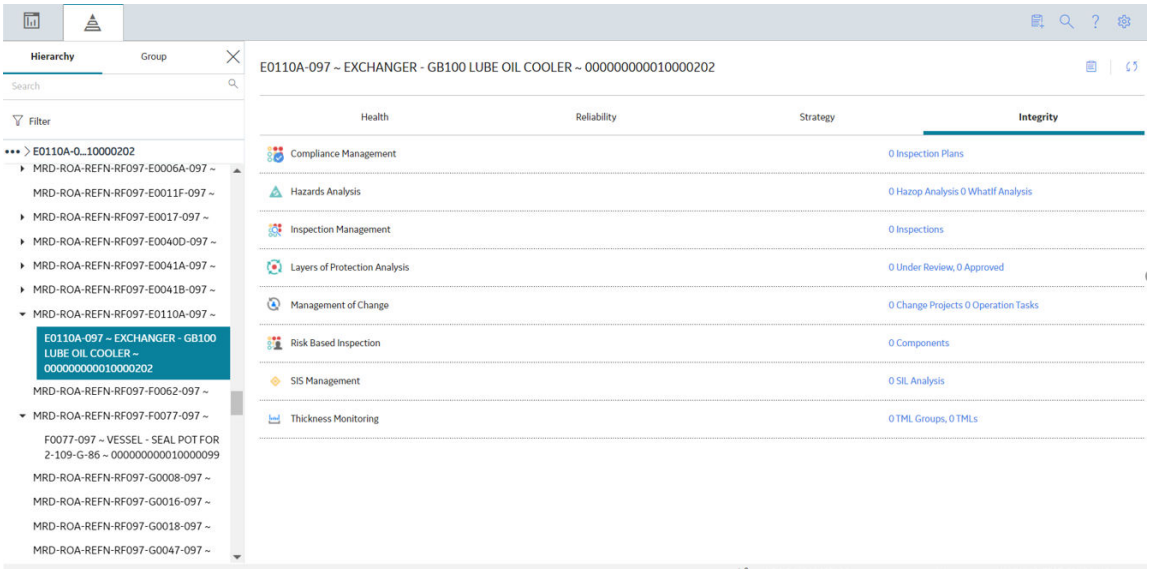
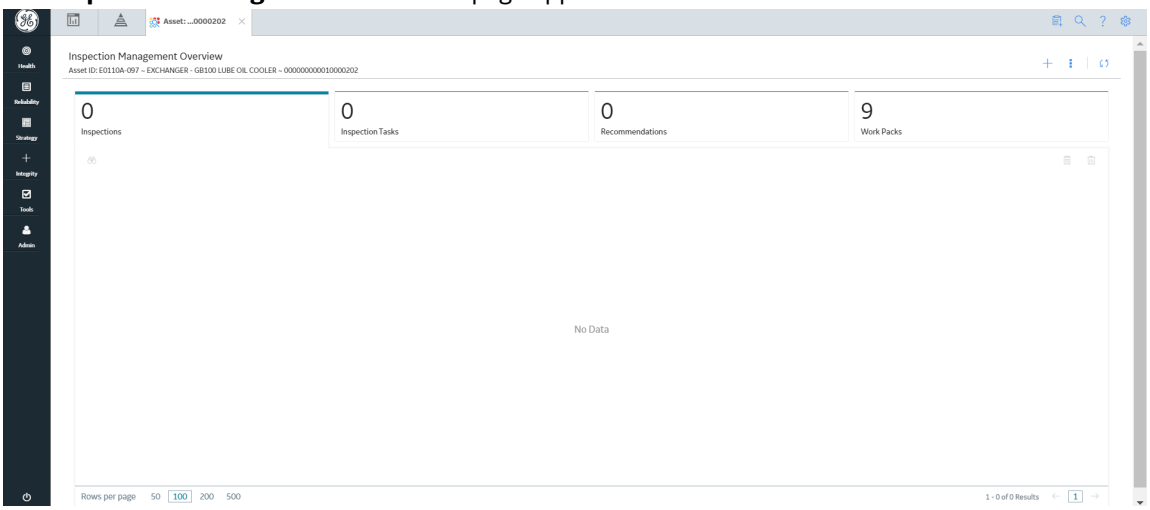


4. In the **Integrity** tab, no inspections appear for the selected asset. The image shows, 0 Inspection.
5. Select the link on the **0 Inspections**.
   The **Inspection Management Overview** page appears for the related asset.



View or Modify Asset Technical Data

This topic describes how to view or modify the Asset Technical Data to determine the certification requirements of the inspectors based on the criticality of the assets.

Procedure

1. Access the **Inspection Management Overview** page.
2. Select and then select **View Asset Technical Data**.
   The Asset Technical Data pane appears, displaying the assets and the related families for Asset Technical Data and NR13 Technical Data.

   Note: All the families for an asset are displayed in the **Has Technical Data** relationship family.

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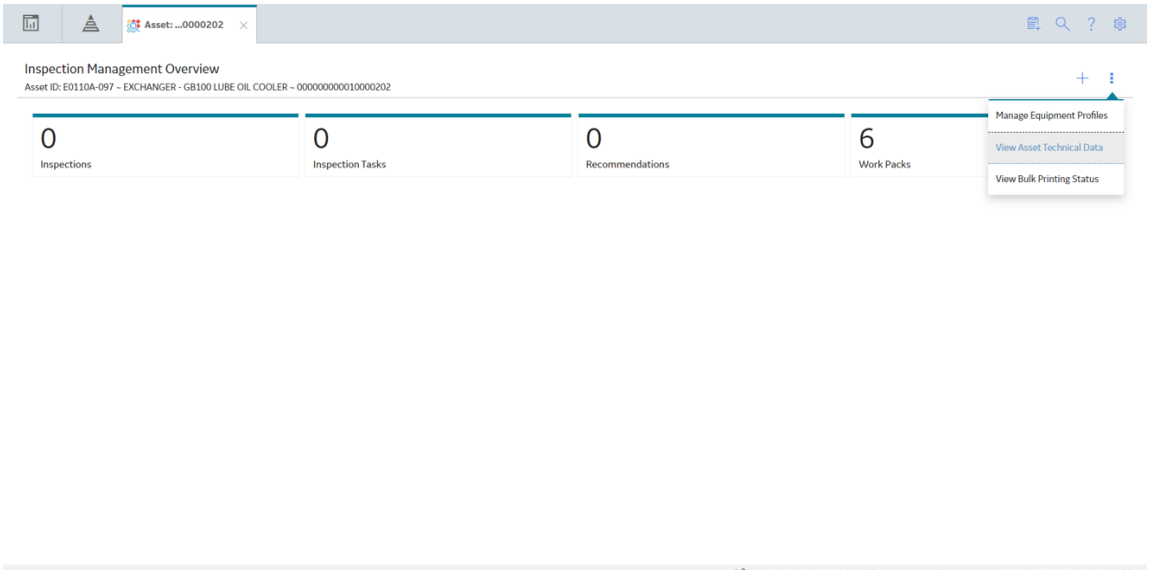
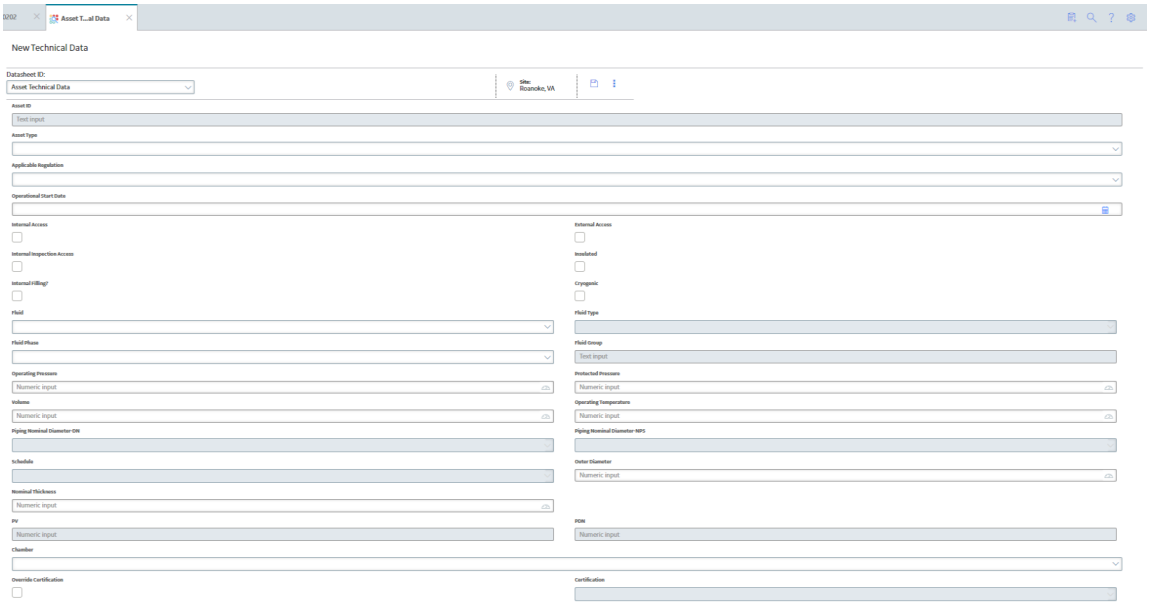


3. To modify a record for Asset Technical Data or NR13 Technical Data, select the related asset from the Technical Data pane.
4. To add a new Asset Technical Data datasheet, select +, and then select the Asset Technical Data from the list displayed.
   A blank Asset Technical Data datasheet for the selected asset appears.



5. As needed, enter values in the available fields. Based on the fields entered in the datasheet, the certification field is calculated.

> **Example**
>
> **Example: Identify certification requirement for a Pressure Vessel**
>
> In this example, two records in Asset Technical Data family are created for the Shell Chamber and the Tube Chamber for the Pressure Vessel asset.

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Field	Value for Shell Chamber	Value for Tube Chamber
Chamber	Shell	Tube
Fluid	C1	C2
Fluid Group	1	2
Fluid Phase	Gas	Liquid
Protected Pressure (P)	50 [Bar]	30 [Bar]
Volume (V)	1200 [Litre]	500 [Litre]
Outer Diameter (DN)	This field is blank as values for this field are used for the certification calculation of Asset Type is Piping.	This field is blank as values for this field are used for the certification calculation of Asset Type Piping.
PV (Protected Pressure*Volume)	6000 [Bar.Litre]	15000 [Bar.Litre]
PDN (Protected Pressure*Outer Diameter)	This field is disabled as the Asset Type is Pressure Vessel.	This field is disabled as the Asset Type is Pressure Vessel.
Certification	ZUS	BP

Note:

- For Shell Chamber, refer to Reference Table 4 for the certificate calculation.
- For Tube Chamber, refer to Reference Table 5 for the certification calculation.

Certification calculation for Asset type Pressure Vessel for a Shell chamber:

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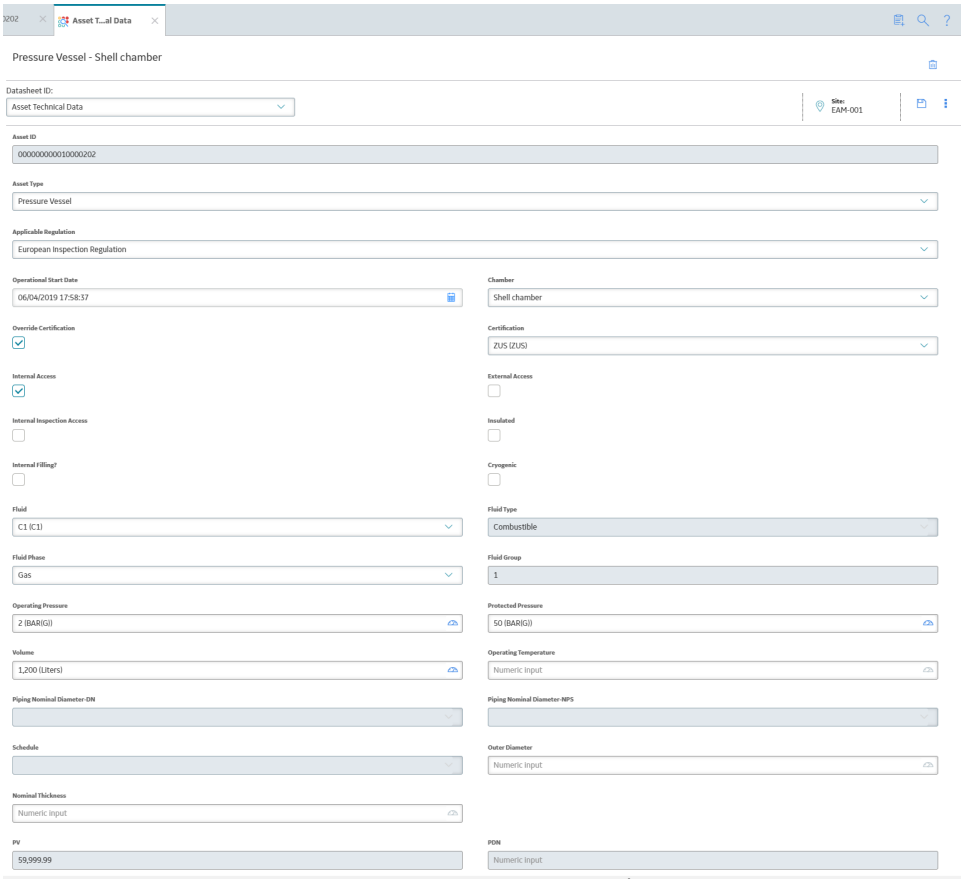

Certification calculation for Asset type Pressure Vessel for a Tube chamber:

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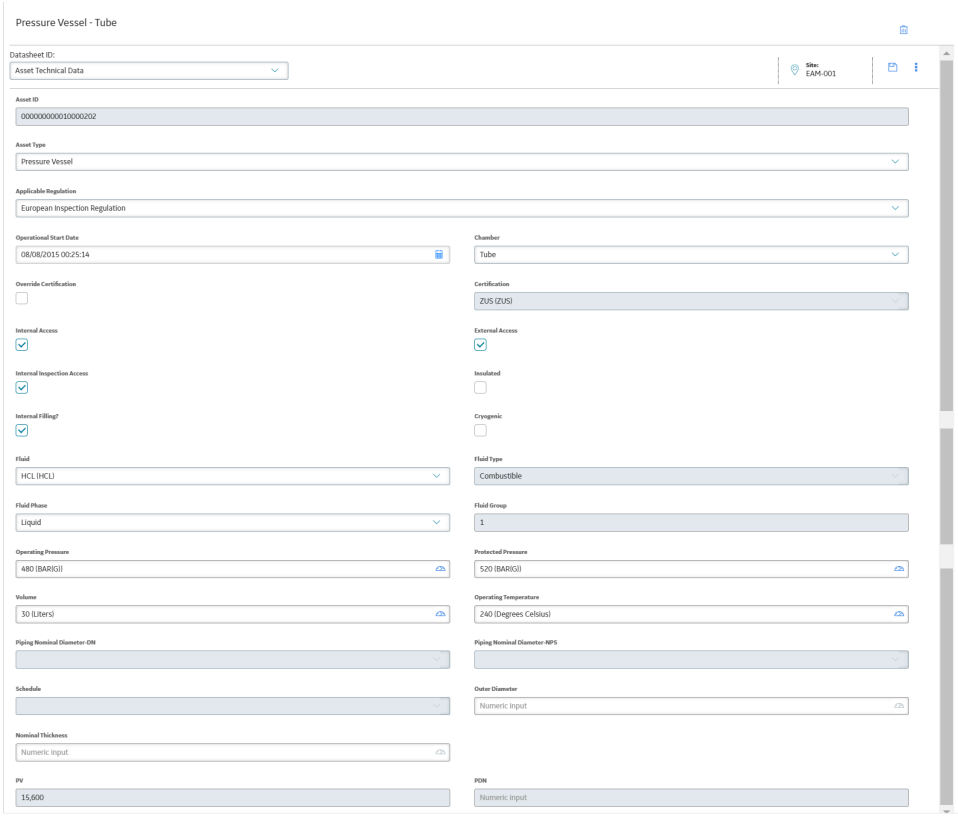

Example: Identify certification requirement for a Simple Pressure Vessel

In this example, a single record is created for the Simple Pressure Vessel asset.

Field	Value
Fluid	C2
Fluid Group	2
Fluid Phase	Gas
Protected Pressure (P)	20 [Bar]
Volume (V)	400 [Litre]
Outer Diameter (DN)	This field is blank as values for this field is used for the certification calculation of Asset Type Piping.
PV (Protected Pressure*Volume)	8000 [Bar.Litre]
PDN (Protected Pressure*Outer Diameter)	This field is disabled as the Asset Type is Simple Pressure Vessel.
Certification	ZUS

Note: For Simple Pressure Vessel, refer to Reference Table 7 for certificate calculation.

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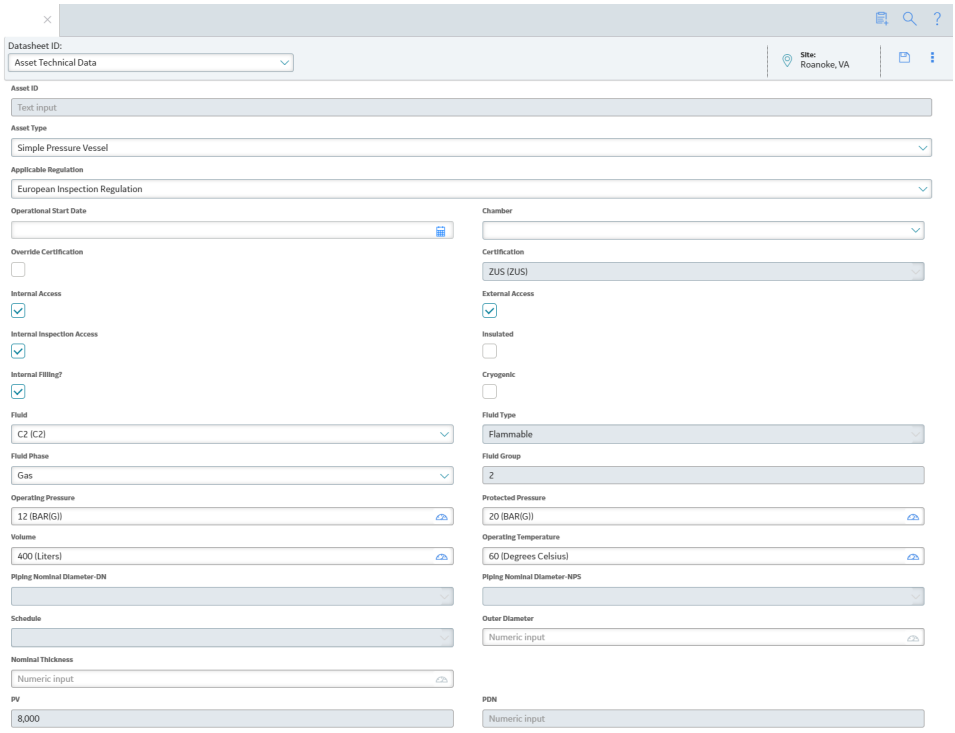

Example: Identify certification requirement for Piping

In this example, a single record is created for the Piping asset.

Field	Value
Fluid	C3
Fluid Group	2
Fluid Phase	Gas
Protected Pressure (P)	12 [Bar]
Volume (V)	This field is blank as values for this field is used for the certification calculation of Asset Type Pressure Vessel, Simple Pressure Vessel, and Steam Boiler.
Outer Diameter (DN)	114.3 [mm]
PV (Protected Pressure*Volume)	This field is disabled as the Asset Type is Piping.
PDN (Protected Pressure*Outer Diameter)	1371.6 [Bar.mm]
Certification	bP

Note: For Piping, refer to Reference Table 9 for certificate calculation.

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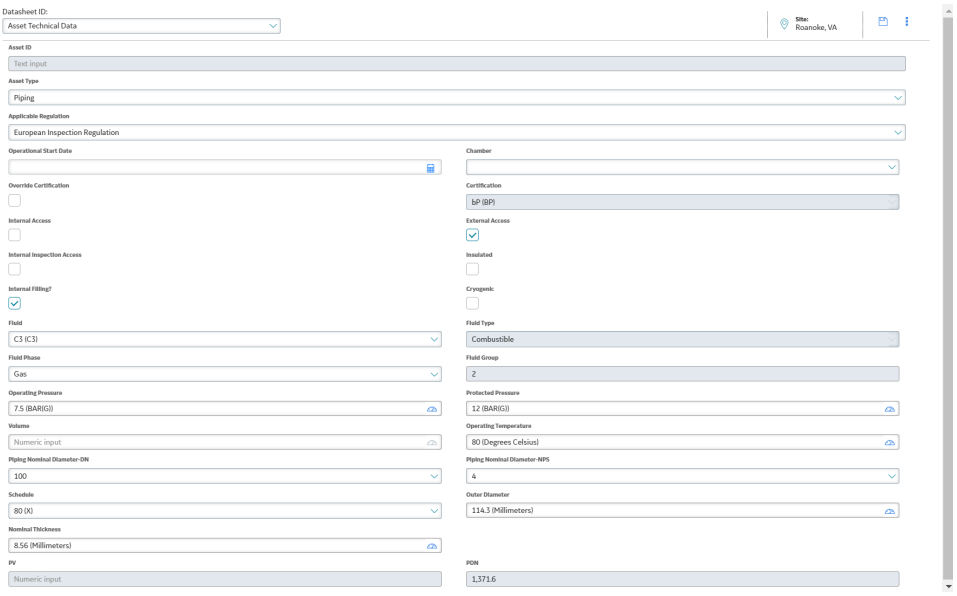

Example: Identify certification requirement for a Steam Boiler

In this example, a single record is created for the Steam Boiler asset.

Field	Value
Fluid	Test
Fluid Group	1
Fluid Phase	Liquid
Protected Pressure (P)	35 [Bar]
Volume (V)	100 [Litre]
Outer Diameter (DN)	This field is blank as values for this field is used for the certification calculation of Asset Type Piping.
PV (Protected Pressure*Volume)	3500 [Bar.Litre]
PDN (Protected Pressure*Outer Diameter)	This field is disabled as the Asset Type is Steam Boiler.
Certification	ZUS

Note: For Steam Boiler, refer to Reference Table 9 for certificate calculation.

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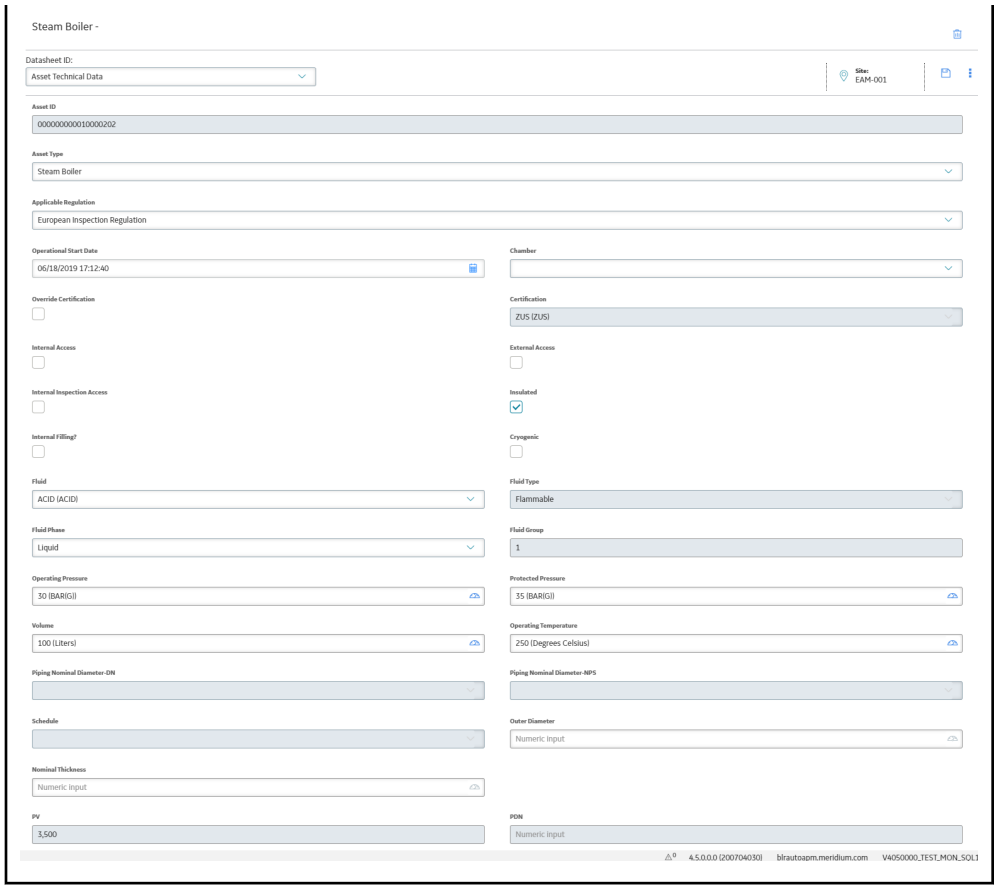

Next Steps

After you have entered all the details, Save the Asset Technical Data for an asset. You can create multiple Asset Technical Data for an asset. The steps above are based on Asset Type Pressure Vessel with a Shell Chamber selection.

Apply Suggested Compliance Strategy Templates for an Asset

Users can get suggested Compliance Strategy Templates for assets that are in the **Assets without Templates** section of the **Compliance Management Overview** page. This section contains assets that do not have linked Compliance Strategy Templates, but match queries attached to Compliance Strategy Templates.

Before You Begin

Procedure

1. Access the **Compliance Management Overview** page, and then select the **Assets without Templates** tab.
   The **Assets without Templates** section appears.
2. Select **Suggest Templates**.
   A window appears, stating that the current Suggested Compliance Template records will be deleted if you proceed.
3. Select **Yes**.

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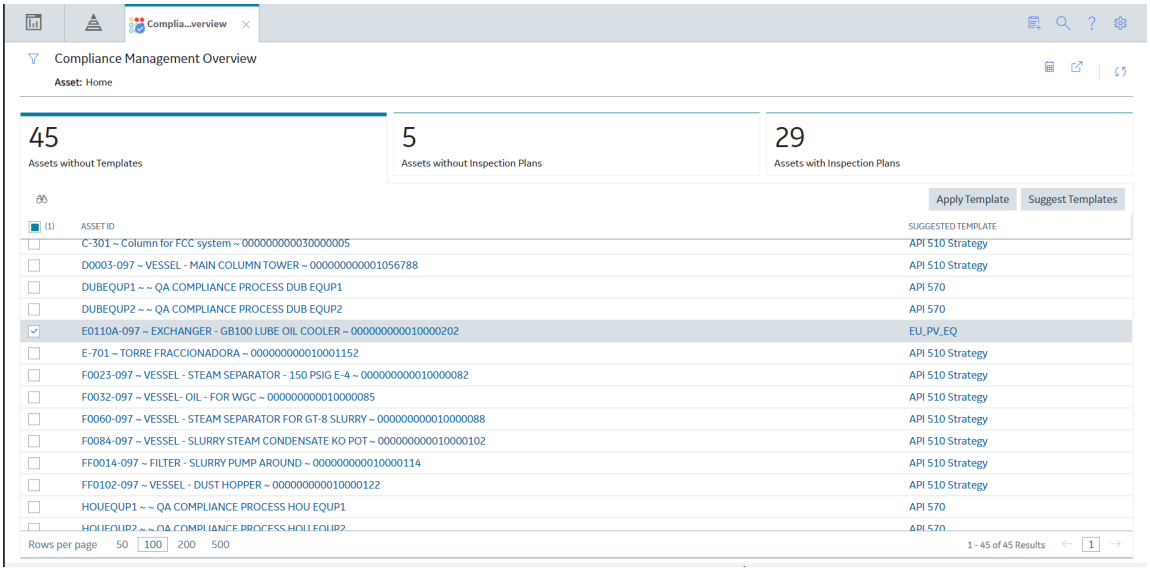
The Suggest Templates process executes. A scheduled job is created.

4. **Optional:** If you want to view the status of the job, select .
   The **Schedule Logs** page appears, displaying a list of all the operations in GE Digital APM that are in progress, along with the percentages of completion. You can also access a list of operations that have been successful or have failed.
5. After selecting Suggested Template, refresh the page.
6. Select the check boxes next to the Asset IDs, and then select **Apply Template**.



   The **Confirm Apply Template** window appears asking you to confirm if you want to apply the suggested templates to the selected assets.
7. Select **Yes**.
   The templates are applied to the selected assets, and the assets appear in the **Assets without Inspection Plans** section of the **Compliance Management Overview** page.

Results

Note: For European Inspection Compliance, GE Digital APM has 8 Compliance Strategy Templates that are available for use. When assets are added, the query is added to the Compliance Strategy Template record and is saved for later use. If a Compliance Strategy Template does not have a query attached to the record, it is excluded from the Suggest Templates job. Additionally, if an asset does not match a query that is attached to a Compliance Strategy Template, it will not receive a suggested Compliance Strategy Template.

Create an Inspection Plan from the Compliance Management Overview Page

You can create an Inspection Plan for assets that are linked to Compliance Strategy Templates.

Before You Begin

The assets must have one or more Compliance Strategy Templates linked to them.

Procedure

1. Access Compliance Management, and then select the **Assets without Inspection Plans** tab.

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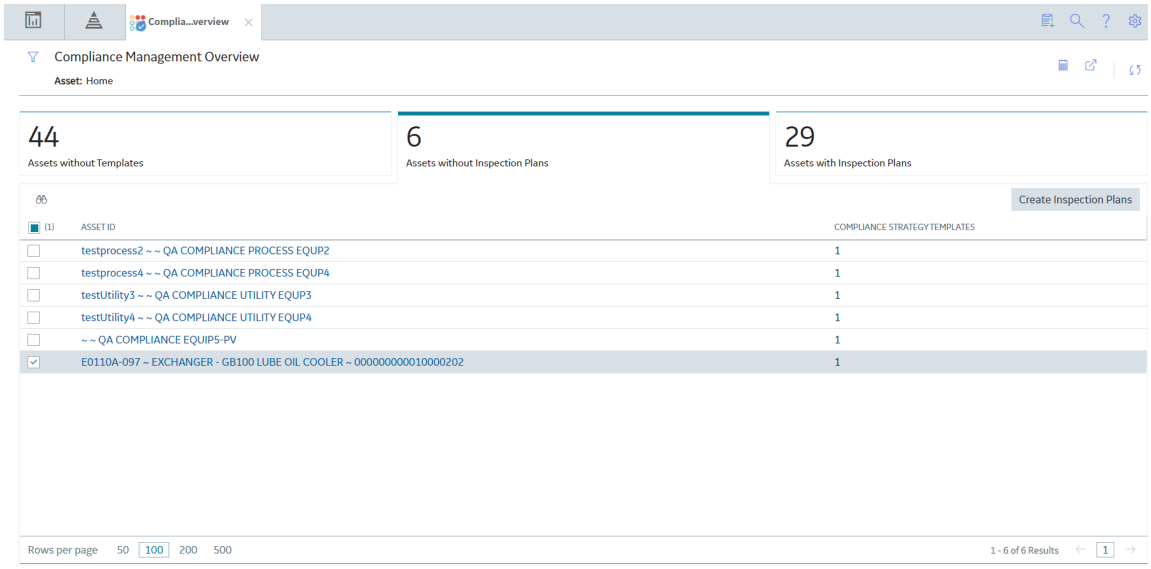
The **Assets without Inspection Plans** section appears, displaying a list of available assets based on the current filter.

2. In the Assets section, select the check boxes against the rows containing the asset to create an Inspection Plan.
   The selected assets are highlighted.
3. Select **Create Inspection Plans**.



The job status appears in the page heading, displaying the progress of the Inspection Plan creation.

Note: When the process is complete, you can select to access the **Schedule Logs** page.

Approve an Inspection Plan

Procedure

1. Access the Inspection Plan that you want to approve.
2. Once an Inspection Plan is created for an asset, the asset along with other assets appears in **Assets with Inspection Plans** tab.

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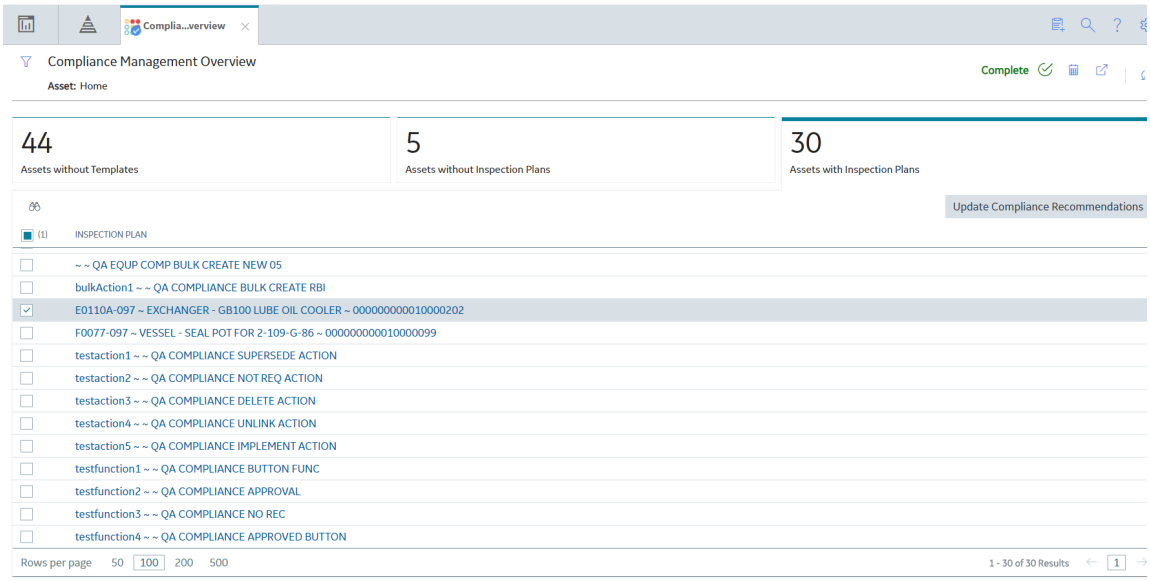
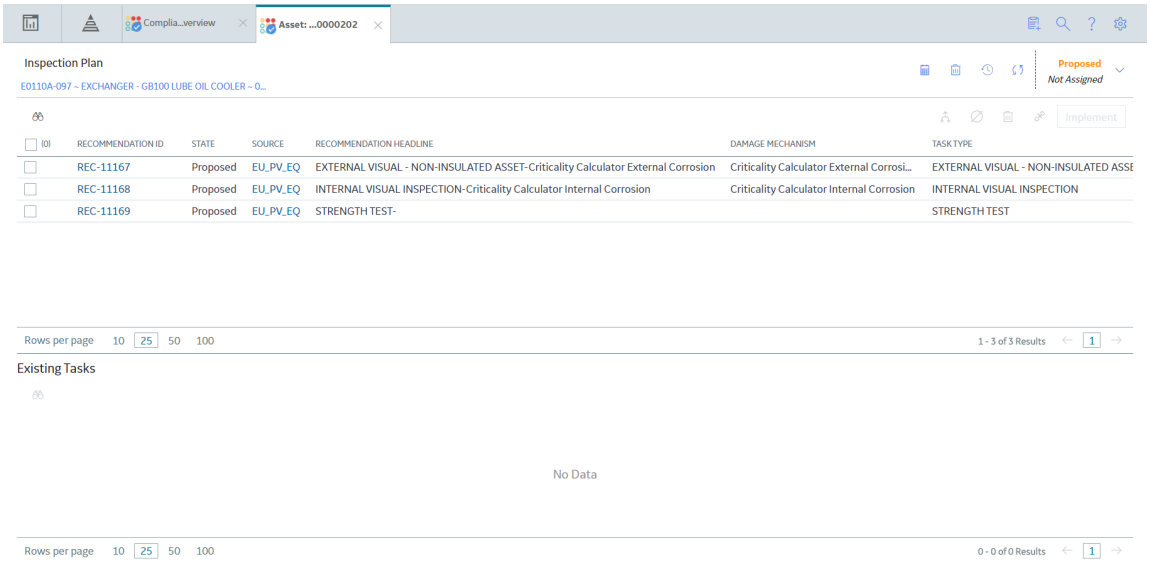


3. Select the asset.
   The **Inspection Plan** page appears for the selected asset.



4. Select **Proposed**, followed by **Approve** and then **Done**.
   A message appears, stating that the Inspection Plan has been approved.

   Note:

   - The inspection plan is promoted as a strategy in ASM. You can view the strategy in ASM by selecting **Open Strategy**.
   - After you approve an Inspection Plan, you cannot delete, supersede, or designate recommendations as Not Required. You must first move them to the Modified state.
   - While the Inspection Plan is being modified, you cannot delete, supersede, or designate recommendations as Not Required.

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Implement an Inspection Plan

Before You Begin

- Ensure that the **Implement Recommended Actions to Tasks in ASM** setting is set to False in the **Inspection Configuration** section of the **IM Admin Preferences** page.
- You must have an Inspection Plan that is in the Approved state.

About This Task

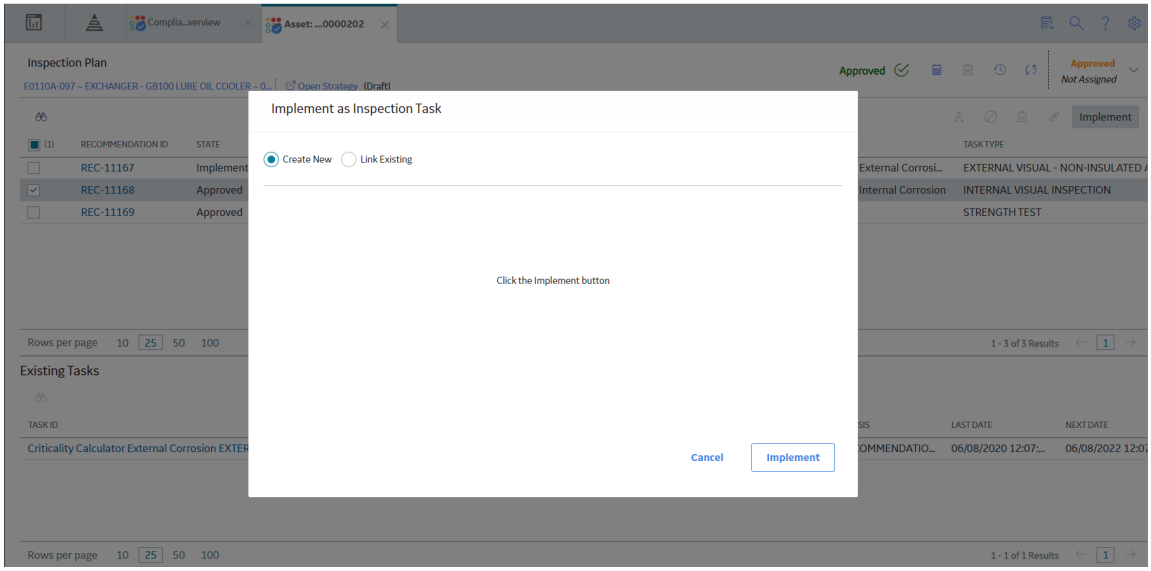
This task describes how to implement an Inspection Plan to an Inspection Task. When you implement an Inspection Plan, all the Compliance Recommendations associated with the Inspection Plan are implemented to an Inspection Tasks.

Procedure

1. You can view if the state of the Inspection Plan from the top-right corner of the page.
2. Select the check box against the recommendation that you want to implement and select **Implement** from the top-right corner of the page.

   Note: You can perform only one implementation at a time. Select a recommendation using the check box to implement. Bulk implemented is not allowed. For more information on Recommendation Details, see Recommendation ID.

   The **Implement as Inspection Task** dialog appears
3. You can implement as a new task or link it to an existing task.
   Here, we are implementing all the three tasks as a new task.



4. As needed, modify the details for the Recommended Actions that you selected.
5. All the three recommendations of the asset have been implemented as new task and are visible in **Existing Tasks** section of the page.
   The Inspection Plan page appears.

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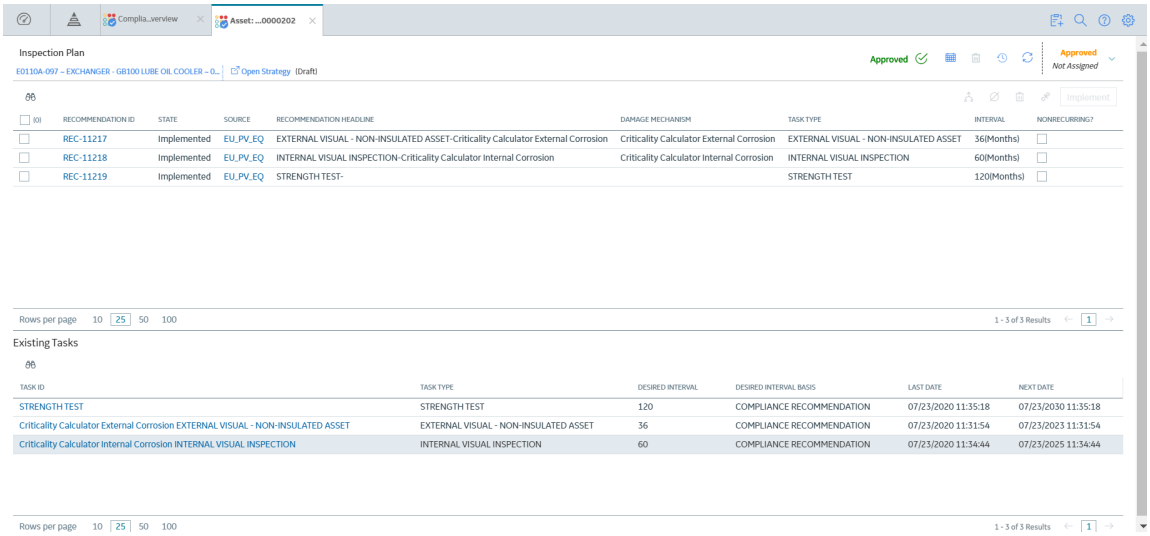

Manage Inspection Tasks

Before You Begin

Ensure that you have implemented an Inspection Plan. For more information on Implementing an Inspection Task, refer to the Implement an Inspection Plan on page 23 topic.

About This Task

This topic describes how to create and manage a European Inspection Task. The European Inspection Task is introduced to the Inspection Task family to manage the European Inspection tasks, according to the Compliance regulation.

Procedure

1. Select any one task from the **Task ID** column in Inspection Plan.
   The **Inspection Task** datasheet appears.
2. Select the **European Inspection Task** datasheet from the **Datasheet ID** drop-down list.
   The European Inspection Task record appears for the asset.
3. As needed, enter values in the available fields of the datasheet.

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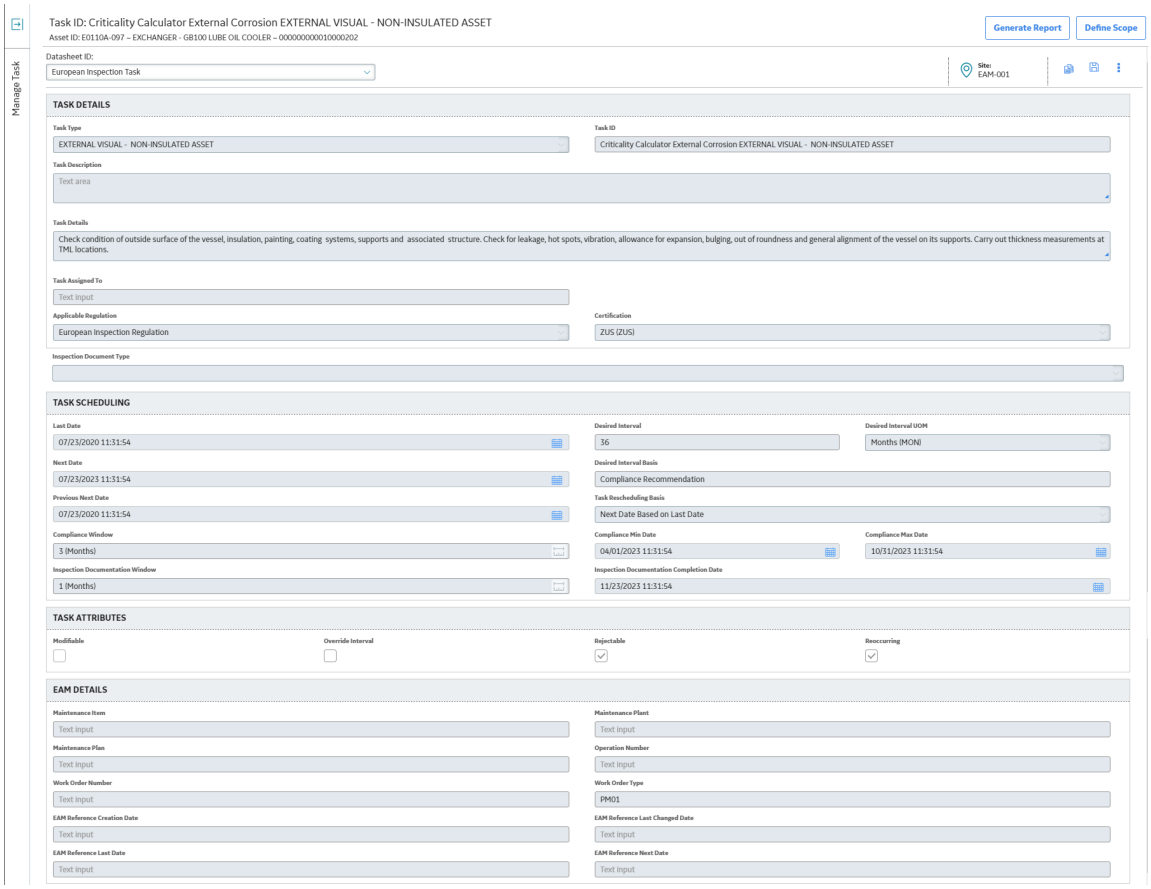

For more information on the Mappings, refer to the European Technical Data and Compliance Recommendation Mappings on page 49 topic. The following fields are available as part of the Inspection Event.

Field	Value	Source
Applicable Regulation	If the inspection is a European Inspection, then you need to select European Inspection Regulation. The values in this field are populated from the MI_INTGY_REGULATION system code table.	Compliance Recommendation
Certification	The values in this field are populated from the MI_COMPLIANCE_STANDARDS system code table. By default, it shows ZUS and BP.	Compliance Recommendation
Previous Next Date	This field is populated automatically by the GE Digital APM system. This filed stores the Next Date before the rescheduling occurs. This field is always disabled.	European Inspection
Task Rescheduling Basis	This field captures the information based on how the Next Date field is calculated. The field can be calculated either by the Completion Date or the Previous Next Date.	European Inspection

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Field	Value	Source
Compliance Window	This field stores the information about the duration of compliance in months.	European Admin Settings
Inspection Documentation Window	This field stores information about the duration in months for documenting an inspection report.	European Admin Settings
Compliance Min Date	The earliest date on which an inspection may be performed.	European Inspection
Compliance Max Date	The time between the Last Date and the Max Date.	European Inspection

Note:

- The **Applicable Regulation** and **Certification** field values are mapped from the related Compliance Recommendation record from which the Inspection Task was created.
- The **Applicable Regulation** value is set to **European Inspection Regulation** and the **Certification** field value is set to ZUS, then the Inspectors with respective certification or Inspection Administrators will be able to select the Modifiable Task field. If the Certification field value is set to ZUS, certification for the inspector will not be checked to select the modifiable task attribute.
- Value in the fields **Compliance Window** and **Inspection Documentation Window in European Inspection Task datasheet** are auto populated from European Admin Settings. These values must be pre-defined at a Site Level.
- If the Certification field value is set, then Modifiable field will set to false before updating the Inspection Task.

Reschedule an Inspection Task

You can reschedule an Inspection Task after completing an Inspection Event. For an Inspection Task that have the **Applicable Regulation** set to European Inspection Regulation, the **Next Date** is updated in an Inspection Task based on the following two scenarios:

- **Scenario 1**: For **Completion Date** before **Compliance Min Date**
  - **Next Date** field on Inspection Task is set based on the value in the **Completion Date** + **Desired Interval**.
  - **Task Rescheduling Basis** field on Inspection Task will be updated to **Next Date** based on **Last Date**.
- **Scenario 2**: For **Completion Date** after **Compliance Min Date**
  - **Next Date** field on Inspection Task is set based on the value in the **Previous Next Date** + **Desired Interval**.
  - **Task Rescheduling Basis** field on Inspection Task will be updated to **Next Date** based on **Next Date**.

The above two scenarios are explained in a form of an example. The following table is used as an example to calculate the Next Date of an Inspection Task Details before any rescheduling.

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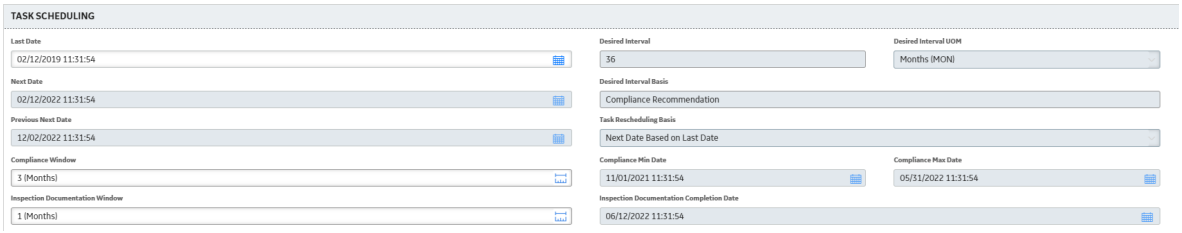
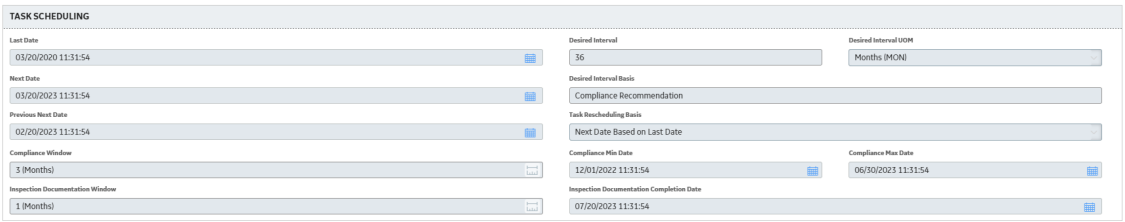
Field	Last Date (mm/dd/yyyy)	Desired Interval (Months)	Next Date (mm/dd/yyyy)	Compliance Window (Months)	Compliance Min Date (mm/dd/yyyy)	Compliance Max Date (mm/dd/yyyy)
Value	02-12-2019	36	02-12-2022	3	11-01-2021	05-31-2022
Behaviour	This is the date in the Inspection Task which will be same as Completion date in Inspection Event. This is a Modifiable field.		The Next Date is updated based on the Last Date + Desired Interval.	Predefined in EU Admin Settings	The date is updated to the First Date of Month for **Next Date - Compliance Window**	The date is updated to the Last Date of Month for **Next Date + Compliance Window**



Using the above example, rescheduling will be done in the following two scenarios.

- **Scenario 1:** Completion Date in Inspection Event is before the Compliance Min Date in the Inspection Task. **Next Date = Last Date + Desired interval**

Field	Compliance Min Date (mm/dd/yyyy)	Completion Date in Inspection Event (mm/dd/yyyy)	Last Date (mm/dd/yyyy)	Previous Next Date (mm/dd/yyyy)	Desired Interval (Months)	Next Date (mm/dd/yyyy)	Task Rescheduling Basis	Compliance Window (Months)	Compliance Min Date (mm/dd/yyyy)	Compliance Max Date (mm/dd/yyyy)
Value	11-01-2021	03-20-2020	03-20-2020	02-12-2022	36	03-20-2023	Next Date Based on Last Date	3	12-01-2022	06-30-2023
Behaviour	Compliance Min Date Before Rescheduling	As Provided by the user.	Same as the Completion Date	This was the Next date before Rescheduling		Date obtained by adding 36 Months to the Last Date			Compliance Min Date After Rescheduling	Compliance Max Date After Rescheduling



- **Scenario 2:** Completion Date in Inspection Event is after the Compliance Min Date in Inspection Task. **Next Date = Previous Next date + Desired interval**

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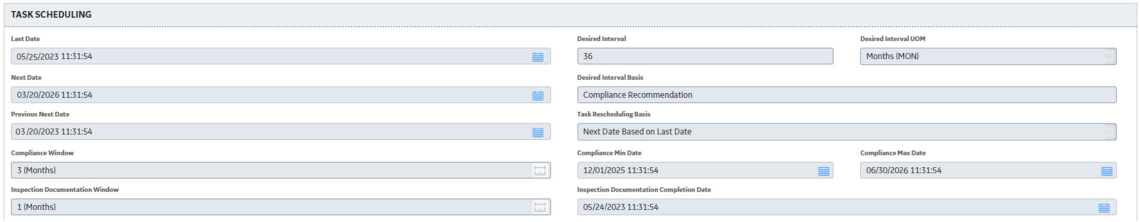
Field	Compliance Min Date (mm/dd/yyyy)	Completion Date in Inspection Event (mm/dd/yyyy)	Last Date (mm/dd/yyyy)	Previous Next Date (mm/dd/yyyy)	Desired Interval (Months)	Next Date (mm/dd/yyyy)	Task Rescheduling Basis	Compliance Window (Months)	Compliance Min Date (mm/dd/yyyy)	Compliance Max Date (mm/dd/yyyy)
Value	12-01-2022	05-24-2023	05-25-2023	03-20-2023	36	03-20-2026	Next Date Based on Previous Next Date	3	12-01-2025	06-30-2026
Behaviour	Compliance Min Date from Scenario -1	As Provided by User	Same as Completion Date	Next Date from Scenario -1		Date obtained by adding 36 Months to the Previous Next Date			Compliance Min Date After Rescheduling	Compliance Max Date After Rescheduling



Manage Inspection Events

About This Task

This task describes how to create and manage an Inspection Event. The European Inspection Report is added to the Full Inspection family to manage an Inspection event for an Asset.

Procedure

1. Access the **Inspection Management Overview** page and select an asset for which you want to create an Inspection Event.
2. Select +, and then select **Create Inspection**.
   The **Create Inspection** window appears.
3. In the **Inspection Event** box, select the Inspection Event.
4. In the **Inspection Tasks** box, select the Inspection Tasks.

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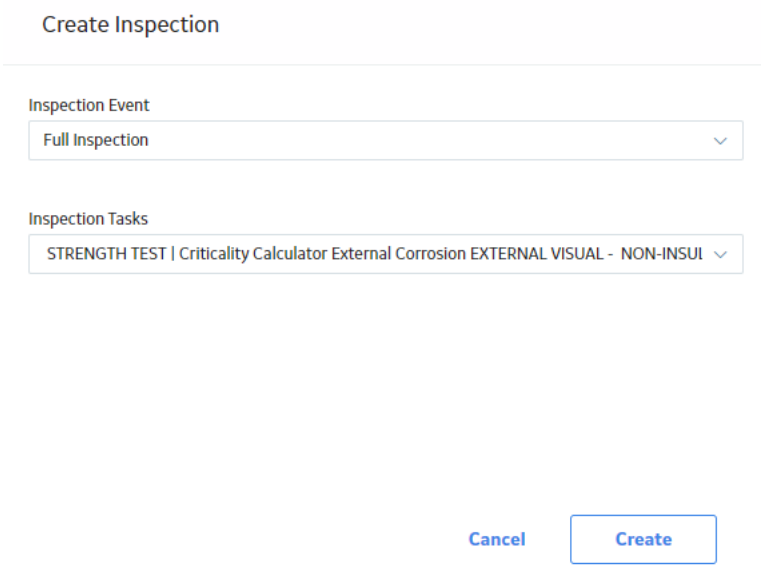

Note:

- You can create an Inspection without selecting any value in the **Inspection Tasks** box.
- You can select either a single Inspection Task or multiple Inspection Tasks using the check box.

5. Select **Create**.
   The **Inspection Details** workspace appears, displaying the **Full Visual Inspection** datasheet.
6. Select **EU Inspection Report** from the drop-down list.
   The EU Inspection Report datasheet appears.

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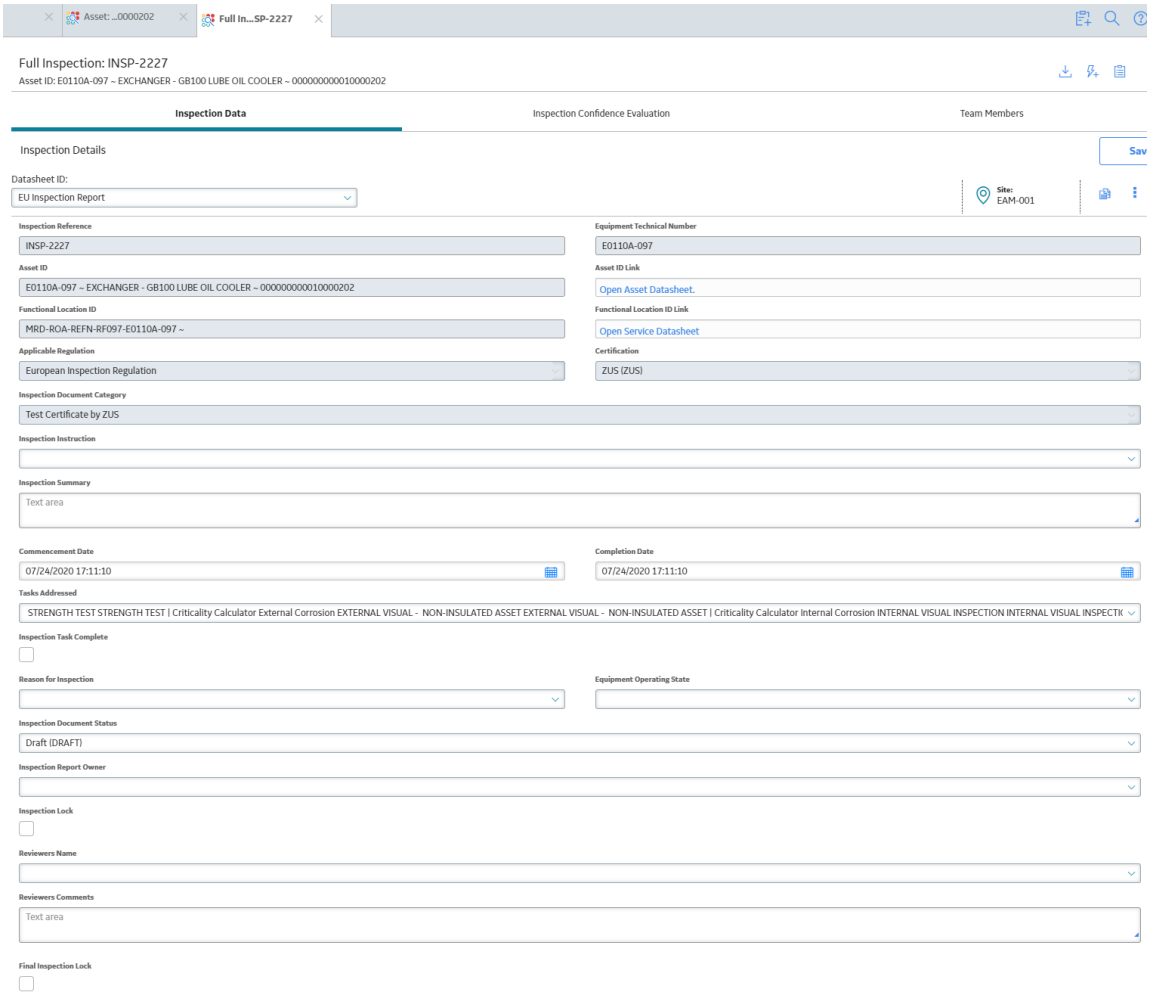

For more information on the Mappings, refer to the Inspection Task and Inspection Event Mappings on page 49 topic. The following fields are available as part of the Inspection Event.

Field	Value	Source
Applicable Regulation	If the inspection is a European Inspection, then you need to select European Inspection Regulation. The values in this field are populated from the MI_INTGY_REGULATION system code table.	Inspection Task
Certification	The values in this field are populated from the MI_COMPLIANCE_STANDARDS system code table. By default, it shows ZUS and BP.	Inspection Task
Inspection Document Category	The field populates the following values: • Test Certificate by ZUS • Test Record by Company Inspector • Test Report by Subcontractor	European Inspection
Inspection Instruction	This field stores a list of instructions for an inspector. The list is populated in a drop-down list box.	European Inspection

Note:

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- **Inspection Report Owner** field will display all the users who satisfy following conditions:
  - If the value in the Certification field is ZUS:
    - The Inspector role with a valid matching Certification can perform inspection.
    - The Team Member with a valid matching Certification can perform inspection.
  - If the Certification field does not have a value:
    - The inspector role can perform the inspection.
    - The Team member can perform the inspection.
- **Reviewer Name** field will display all the users who satisfy following conditions:
  - If the Certification field has a value:
    - The Inspector Supervisor role with a valid matching Certification can perform the inspection.
    - The Team Member with a valid matching Certification can perform the inspection.
- If the certification field has a value, then the check boxes **Inspection Lock** and **Inspection Task Complete** can be selected by either the Inspector or any Team Member provided they have the respective certification.
- If the **Application Regulation** is European Inspection Regulation, **Certification** is **ZUS** then **Inspection Document Category** is set to Test Certificate by ZUS and disabled. If the Certification is not ZUS, then the **Inspection Document Category** field would be enabled.
- An **Inspection Summary** appears based on the **Inspection Document Category** and **Inspection Instructions** selected. Select the values based on the available fields.

7. In the datasheet, enter values in the available fields.
8. An Inspection is created for an asset in a European Inspection Report an asset.

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Chapter 4

Reference

Topics:

- General Reference
- Data Models
- Annexure-1
- Family Field Descriptions
- Field Mappings
- Policies
- System Code Tables
- Queries

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General Reference

Security Groups

The following table provides a list of the baseline family-level privileges that exist for the Security Groups:

Security Group	Privileges to the Fluid Data Family	Privileges to the Asset Technical Data Family	Privileges to the Compliance Recommendation Mapping Family	Privileges to the Inspection Summary Reference Family	Privileges to the European Admin Settings Family
MI RBI Administrator	View, Update, Insert, Delete	View, Update, Insert, Delete	View, Update, Insert, Delete		
MI RBI Analyst	View, Update, Insert, Delete	View, Update, Insert, Delete	View, Update, Insert, Delete		
MI Thickness Monitoring Viewer	View	View	View		
MI RBI Viewer	View	View	View	View	View
MI Thickness Monitoring User	View	View	View		
MI Thickness Monitoring Inspector	View	View	View	View	View
MI Thickness Monitoring Administrator	View, Update, Insert, Delete	View, Update, Insert, Delete	View, Update, Insert, Delete		
MI Inspection	View, Update, Insert, Delete	View, Update, Insert, Delete	View, Update, Insert, Delete	View, Update, Insert, Delete	View, Update, Insert, Delete
MI Inspection Viewer	View	View	View	View	View

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Compliance Strategy Templates

The following table lists the Compliance Strategy Templates for the European Inspection Management:

Compliance Strategy Template	Asset Type	Policy	Family	Query
EU_PIPE_FL	Piping	EU_PIPE_FLOC	Functional Location	Public\Meridium\Modules\Inspection\Compliance\EU Regulation\Queries\EU_Available_Assets_Piping_FLOC
EU_PIPE_EQ	Piping	EU_PIPE_EQPT	Equipment	Public\Meridium\Modules\Inspection\Compliance\EU Regulation\Queries\EU_Available_Assets_Piping_EQP
EU_SB_FL	Steam Boiler	EU_SB_FLOC	Functional Location	Public\Meridium\Modules\Inspection\Compliance\EU Regulation\Queries\EU_Available_Assets_SteamBoiler_FLOC
EU_SB_EQ	Steam Boiler	EU_SB_EQPT	Equipment	Public\Meridium\Modules\Inspection\Compliance\EU Regulation\Queries\EU_Available_Assets_SteamBoiler_EQP
EU_SPV_FL	Simple Pressure Vessel	EU_SPV_FLOC	Functional Location	Public\Meridium\Modules\Inspection\Compliance\EU Regulation\Queries\EU_Available_Assets_SPV_FLOC
EU_SPV_EQ	Simple Pressure Vessel	EU_SPV_EQPT	Equipment	Public\Meridium\Modules\Inspection\Compliance\EU Regulation\Queries\EU_Available_Assets_SPV_EQP

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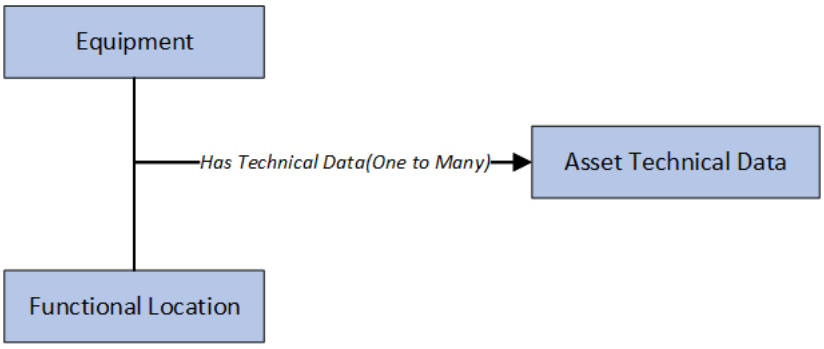
Compliance Strategy Template	Asset Type	Policy	Family	Query
EU_PV_FL	Pressure Vessel	EU_PV_FLOC	Functional Location	Public\Meridium \Modules\Inspection \Compliance\EU Regulation\Queries \EU_Available_Assets_PressureVessel_FLOC
EU_PV_EQ	Pressure Vessel	EU_PV_EQPT	Equipment	Public\Meridium \Modules\Inspection \Compliance\EU Regulation\Queries \EU_Available_Assets_PressureVessel_EQP

Data Models

Data Model

The following diagram shows how the families are related within the European Inspection Management Data Models.



Note: In the diagram, boxes represent entity families and arrows represent relationship families that are configured in the baseline database.

Has Technical Data Relationship

This relationship family is used to link Asset Technical Data to an Equipment or Functional Location.

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Annexure-1

Table F: Fluid Group Table

The following table lists the specific conditions for the different fluid categories used for European Inspection Management:

Fluid Category	Conditions		Fluid Group
Explosive	Not Applicable	Not Applicable	1
Flammable Category 1	Not Applicable	Not Applicable	1
Flammable Category 2	Not Applicable	Not Applicable	1
Flammable Category 3	TB > FP	FP<=55 degree Celsius (131 degree Fahrenheit)	1
Pyrophoric	Not Applicable	Not Applicable	1
Acute Toxic Category 1	Not Applicable	Not Applicable	1
Acute Toxic Category 2	Not Applicable	Not Applicable	1
Oxidising	Not Applicable	Not Applicable	1
Corrosive	Not Applicable	Not Applicable	2
Flammable Category 3	TB <= FP	Not Applicable	2
Others	Not Applicable	Not Applicable	2
* TB : Max. Permissible Temperature			
* FP : Flash Point			

Table R: Reference Table Chart

The following table lists the reference table charts for the equipment categories:

Asset Type	Physical State	Fluid Group	Table
Boiler	Not Relevant	Not Relevant	2
Pressure Vessel	Gas	1	3
Pressure Vessel	Gas	2	4
Pressure Vessel	Liquid	1	5
Pressure Vessel	Liquid	2	6
Simple Pressure Vessel	Gas	2	7
Piping	Gas	1	8
Piping	Gas	2	9

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Asset Type	Physical State	Fluid Group	Table
Piping	Liquid	1	10
Piping	Liquid	2	11

Table - 1: Inspection Interval for Asset Types

The following table lists the Inspection interval for the asset types used for European Inspection Management:

Asset Type	External Examination	Internal Examination	Strength Test
Steam Boiler in Table 2	1 Year	3 Years	9 Years
Pressure Vessel in Table 3, Table 4, Table 5, and Table 6	2 Years	5 Years	10 Years
Simple Pressure Vessel in Table 7	Not Applicable	5 Years	10 Years
Piping in Table 8, Table 9, Table 10, and Table 11	5 Years	Not Applicable	5 Years

Table - 2: Boiler Equipment Category

The following table lists the test responsibilities for the Boiler equipment category:

V [Litre]	PS [Bar]	PS.V [Bar-Litre]	Non-Recurring Inspection	Recurring Inspection
>2	0.5< PS <=32	<=200	bP	bP
<=1000	0.5 < PS <= 32	200< PS.V<= 1000	ZÜS	bP
>1000	0.5 < PS <= 32	Not Applicable	ZÜS	ZÜS
<= 1000	0.5 < PS <= 32	>1000	ZÜS	ZÜS
> 2	>32	Not Applicable	ZÜS	ZÜS

Table - 3: Pressure Vessels with Gas for the Fluid Group - 1

The following table lists the test responsibilities for the pressure vessels with gas for the Fluid Group - 1:

V [Litre]	PS [Bar]	PS.V [Bar-Litre]	Non-Recurring Inspection	Recurring Inspection
1<V<=200	>0.5	25<PS.V <=200	bP	bP
>200	0.5<PS<=1	Not Applicable	bP	bP
<=1	200<PS<=1000	Not Applicable	ZÜS	bP
>1	>1	200<PS.V<=1000	ZÜS	bP
<=1	>1000	Not Applicable	ZÜS	ZÜS
>1	>1	>1000	ZÜS	ZÜS

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Table - 4: Pressure Vessels with Gas for Fluid Group - 2

The following table lists the test responsibilities for the pressure vessels with gas for Fluid Group - 2:

V [Litre]	PS [Bar]	PS.V [Bar-Litre]	Non-Recurring Inspection	Recurring Inspection
1<V<=200	>0.5	50<PS.V<=200	bP	bP
>200	0.5<PS<=1	Not Applicable	bP	bP
>1	>1	200<PS.V<=1000	ZÜS	bP
<=1	>1000	Not Applicable	ZÜS	ZÜS
>1	>1	>1000	Not Applicable	Not Applicable

Table - 5: Pressure Vessels with Liquids for Fluid Group - 1

The following table lists the test responsibilities for the pressure vessels with liquids for Fluid Group - 1:

V [Litre]	PS [Bar]	PS.V [Bar-Litre]	Non-Recurring Inspection	Recurring Inspection
Not Applicable	0.5<PS<=10	>200	bP	bP
<=1	>500	<=1000	bP	bP
<=1	>500	1000<PS.V<=10000	ZÜS	bP
>1	>500	<=10000	ZÜS	bP
>1	10<PS<=500	>200	ZÜS	bP
Not Applicable	>500	>10000	ZÜS	ZÜS

Table - 6: Pressure Vessels with Liquids for Fluid Group - 2

The following table lists the test responsibilities for the pressure vessels with liquids for Fluid Group - 2:

V [Litre]	PS [Bar]	PS.V [Bar-Litre]	Non-Recurring Inspection	Recurring Inspection
<=1	>1000	<=1000	bP	bP
<=10	>1000	1000<PS.V<=10000	ZÜS	bP
Not Applicable	10<PS<=500	>10000	ZÜS	bP
Not Applicable	>500	>10000	ZÜS	ZÜS

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Table - 7: Simple Pressure Vessels

The following table lists the test responsibilities for Simple Pressure Vessels:

V [Litre]	PS [Bar]	PS.V [Bar-Litre]	Non-Recurring Inspection	Recurring Inspection
Not Applicable	0.5<PS<=30	50<PS.V<=200	bP	bP
Not Applicable	0.5<PS<=1	200<PS.V<=10000	bP	bP
Not Applicable	1<PS<=30	200<PS.V<=1000	ZÜS	bP
Not Applicable	1<PS<=30	1000<PS.V<=10000	ZÜS	ZÜS

Table - 8: Piping with Gases for Fluid Group Table - 1

The following table lists the test responsibilities for Piping with gases for Fluid Group - 1:

Sl. No.	DN[Millimeter]	PS[Bar]	PS.DN[Bar-mm]	Non-Recurring Inspection	Recurring Inspection
1	>25	>0.5	<=2000	bP	bP
2	>25	>0.5	>2000	ZÜS	ZÜS

Table - 9: Piping with Gases for Fluid Group Table- 2

The following table lists the test responsibilities for Piping with gases for Fluid Group - 2:

DN[Millimeter]	PS[Bar]	PS.DN[Bar-mm]	Non-Recurring Inspection	Recurring Inspection
>32	>0.5	1000<PS.DN<=2000	bP	bP
>32	>0.5	>2000	ZÜS	ZÜS

Table - 10: Piping with liquids for Fluid Group Table - 1

The following table lists the test responsibilities for Piping with liquids for Fluid Group - 1:

DN[Millimeter]	PS[Bar]	PS.DN[Bar-mm]	Non-Recurring Inspection	Recurring Inspection
>25	>0.5	>2000	ZÜS	ZÜS

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Table - 11: Piping with liquids for Fluid Group Table - 2

The following table lists the test responsibilities for Piping with liquids for Fluid Group - 2:

DN[Millimeter]	PS[Bar]	PS.DN[Bar-mm]	Non-Recurring Inspection	Recurring Inspection
>200	>10	>5000	ZÜS	ZÜS

Family Field Descriptions

Asset Technical Data

Asset Technical Data datasheet stores asset-related information required for certification calculation.

The table below provides an alphabetical list and description of the fields that exist for Asset Technical Data. The information in the table reflects the type and behavior of these fields. This list is not comprehensive.

Note: You can access the Asset Technical Data datasheet for any asset using the Search ( ) button.

Field	Data Type	Description	Behavior and Usage
Applicable Regulation	Character (255)	Stores the regulation type that is applicable to an asset.	This field is populated with a list of regulations to be linked to an asset. This field is populated with a description of system codes stored in MI_INTGY_REGULATION system code table. For European Inspection Management, Applicable Regulation is listed as an European Inspection Regulation. This field is required to calculate certification requirements for the asset of the following types: • Pressure Vessel • Simple Pressure Vessel • Steam Boiler • Piping
Asset ID	Character (255)	Stores the ID of an asset.	This field is populated with the Equipment Record ID or with the Functional Location ID.

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Field	Data Type	Description	Behavior and Usage
Asset Type	Character (255)	Stores the type of asset.	This field is populated with descriptions of the system codes that are stored in the MI_INTGY_ASSET_TYPE system code table. This field is required to calculate certification requirements for the asset of the following types: • Pressure Vessel • Simple Pressure Vessel • Steam Boiler • Piping
Certification	Character (255)	Stores the certification value.	The values in this field are populated from a drop-down list box and contains a list of system codes that exist in the MI_COMPLIANCE_STANDARDS system code table. In baseline, the Certification field populates the values which are referenced by MI_INTGY_REGULATION system code table. By default, it shows ZUS and BP.
Chamber	Character (255)	Stores information about the type of chamber.	This field contains a list of system codes that exist in the MI_CHAMBER system code table. You can choose from the baseline values. The values in this field are populated from a drop-down list box. Refer to the System Code Table for details regarding the type of chamber.
Cryogenic	Boolean	Mentions whether the asset is operated under cryogenic conditions.	This field records additional information regarding the asset. Select the checkbox if the asset operates under the cryogenic conditions.
External Access	Boolean	Mentions whether the physical access for the asset is available externally.	This field records additional information regarding the asset. Select the checkbox if external access is available for the asset inspection.

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Field	Data Type	Description	Behavior and Usage
Fluid	Character (255)	Specifies the name of the fluid which is stored within an asset.	This field is required to calculate certification requirements for the asset of the following types: • Pressure Vessel • Simple Pressure Vessel • Piping
Fluid Group	Character (255)	Stores the fluid group.	This field is populated automatically when you select a fluid. The Fluid Group is Group 1 or Group 2.
Fluid Phase	Character (255)	Specifies the fluid phase.	This field is populated with relevant values from a drop-down list box when you select a fluid. The values in this field exist in the system code table. The Fluid Phase is liquid or gas.
Fluid Type	Character (255)	Stores the fluid type.	This field is populated automatically when you select a fluid. The Fluid Type is Flammable or Combustible.
Insulated	Boolean	Mentions whether the asset is insulated.	This field can be used to record additional information about the asset. Select the check box if the asset is insulated.
Internal Access	Boolean	Mentions whether internal access is available for an asset.	This field can be used to record additional information about the asset. Select the check box if internal access is available to inspect an asset.
Internal Filling	Boolean	Mentions whether the fluid is filled internally.	This field can be used to record additional information about the asset. Select the check box if the asset is filled internally.
Internal Inspection Access	Boolean	Mentions whether an asset is inspected internally.	This field can be used to record additional information about the asset. Select the check box if there is access available to inspect an asset internally.
Nominal Thickness	Numeric	Specifies the manufactured or the estimated thickness used as a base measurement.	This field is populated automatically based on a specified piping nominal diameter value and schedule.

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Field	Data Type	Description	Behavior and Usage
Operating Pressure	Numeric	Specifies the pressure of an asset during normal operation. It is measured in pounds per square inch gauge.	The value for this field can be specified manually using the datasheet.
Operating Temperature	Numeric	Specifies the temperature of an asset during a normal operation. It is measured in degrees Fahrenheit.	The value for this field can be specified manually using the datasheet.
Operational Start Date	Date	Mentions the operational start date for an asset.	Select for the Operation start date.
Outer Diameter	Numeric	Specifies the diameter of a piping asset from the outer wall surface. It is measured in inches.	This field is populated automatically based on a specified Piping Nominal Diameter value and Schedule. This field is required to calculate certification requirements for the Asset Type Piping.
Override Certification	Boolean	Specifies whether the calculated certification is to be overridden.	If you select the Override Certification checkbox, you can override the certification field, and then select the value for the Override Certification field from a drop-down list box.
PDN	Numeric	Mentions the value of Protected Pressure x Outer Diameter. It is measured in inches.	This field is populated automatically from the multiplication of Protected Pressure and Outer Diameter.

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Field	Data Type	Description	Behavior and Usage
Piping Nominal Diameter - DN	Numeric	Specifies a nominal diameter for piping. It is measured in inches.	This field populates Piping Nominal Diameter as per ISO specifications. The values in Piping Nominal Diameter field is populated by a drop-down list box. This field will be disabled if Piping is not selected as the Asset Type. When a value is selected for the Piping Nominal Diameter - NPS or the Piping Nominal Diameter - DN fields: • A list of possible values are generated for the Schedule field. • After a value is selected for the Schedule field, the Pipe Properties reference table populates the Nominal Thickness and the Outside Diameter fields.
Piping Nominal Diameter - NPS	Numeric	Specifies a nominal pipe size for piping. It is measured in inches.	The field populates Piping Nominal Diameter according to the ASME specifications. The values in the Piping Nominal Diameter field will be populated by a drop-down list box. This field will be disabled if Piping is not selected as the Asset Type. When a value is selected for the Piping Nominal Diameter - NPS or the Piping Nominal Diameter - DN fields: • A list of possible values is generated for the Schedule field • After a value is selected for the Schedule field, the Pipe Properties reference table populates the Nominal Thickness and the Outside Diameter fields.

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Field	Data Type	Description	Behavior and Usage
Protected Pressure	Numeric	Stores the protected pressure of the asset. It is measured in pounds per square inch gauge.	Value for this field can be specified manually using the datasheet. This field is required to calculate certification requirements for the asset of the following types: • Pressure Vessel • Simple Pressure Vessel • Steam Boiler • Piping
PV	Numeric	Mentions the value of Protected Pressure x Volume. It is measured in pounds per square inch gauge.	This field is populated automatically from the multiplication of Protected Pressure and Volume.
Schedule	Character (255)	Specifies the schedule number corresponding to the wall thickness of the pipe.	When a value is selected for either the Piping Nominal Diameter - NPS or the Piping Nominal Diameter - DN fields, a list of possible values is generated for the Schedule field in a drop-down list box. This field will be disabled and blank if Asset Type is not selected as Piping.
Volume	Numeric	Specifies the amount of fluid stored within an asset. It is measured in Gallons.	The value for this field can be specified manually using the datasheet. Value for this field can be specified manually using the datasheet. This field is required to calculate certification requirements for the asset of the following types: • Pressure Vessel • Simple Pressure Vessel • Steam Boiler

Fluid Data

Fluid Data datasheet stores fluid-related information required for the certification calculation.

The table below provides an alphabetical list and description of the fields that exist for Fluid Data. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

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Field	Data Type	Description	Behavior and Usage
Category	Character (255)	Stores the fluid category list according to Table - F.	This field contains a list of system codes which exist in the MI_INTGY_FLUID_CTGY system code table. The values in this field are populated from a drop-down list box.
Description	Character (255)	Stores the fluid description.	This field is populated automatically from the selected fluid name.
Flash Point	Numeric	Stores the flash point of the fluid.	The value for this field can be specified manually using the datasheet.
Group	Character (255)	Specifies the fluid group according to Table - F.	This field is populated automatically according to the rules in Table - F. This field contains a list of system codes that exist in MI_INTGY_FLUID_GROUP system code table.
Maximum Permissible Temperature	Numeric	Stores the maximum permissible temperature of the fluid. It is measured in degrees Fahrenheit.	Specify the value for this field manually using the datasheet.
Name	Character (255)	Stores the name of the fluid.	This field contains a list of system codes that exist in the MI_INTGY_FLUID_NAME system code table. You can choose from the baseline values, populated from a drop-down list box.
Type	Character (255)	Stores the type of fluid.	This field contains a list of system codes that exist in the FLUID TYPES system code table. The fluid type is Combustible or Flammable.

Compliance Recommendation Mapping

The Compliance Recommendation Mapping family stores details related to Compliance Recommendations Mapping.

The table below provides an alphabetical list and description of the fields that exist for the Compliance Recommendation Mapping family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

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Field	Data Type	Description	Behavior and Usage
Reference	Character (255)	Specifies the reference to the system code.	This field stores the references of a mapping record which exist in the MI_MAPPING_REFERENCE system code table.
Source Family	Character (255)	Stores the ID of the family from which it is mapped.	This field contains the ID of the source family from which it is mapped.
Source Field	Character (255)	Stores the ID of the field from which it is mapped.	This field contains the ID of the source field from which it is mapped.
Target Family	Character (255)	Stores the ID of the target family from which it is mapped.	This field contains the target ID of the family to which it is mapped.
Target Field	Character (255)	Stores the ID of the target field from which it is mapped.	This field contains the target ID of the family to which it is mapped.

Inspection Summary Reference

The Inspection Summary Reference family stores inspection related information required for generating an Inspection Summary Reference record.

The table below provides an alphabetical list and description of the fields that exist for Inspection Summary Reference. The information in the table reflects the type and behavior of these fields. This list is not comprehensive.

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Field	Data Type	Description	Behavior and Usage
Inspection Category	Character	Stores the Inspection Category required for generating a report for the EU Inspection Report datasheet.	This field is populated with a list of inspection categories to be linked to an asset. This field is populated with the description of system codes stored in the MI_EN_DOC_CTGY system code table.
Inspection Instruction	Character	Stores Inspection Instruction required for generating a report for the EU Inspection Report datasheet.	This field is populated with a list of Inspection instructions to be linked to an asset. This field is populated with the description of system codes stored in the EU_INSP_INST system code table.
Inspection Summary	Text	Stores the summary of observations that the Inspector enters for a European Inspection Event.	In the EU Inspection report, based on the values selected in the Inspection Category and Inspection Instruction boxes, the summary will be auto populated with the value entered in this field.

European Admin Settings

The European Admin Settings family stores site-specific Compliance related information required for generating a European inspection task.

The table below provides an alphabetical list and description of the fields that exist for European Admin Settings. The information in the table reflects the type and behavior of these fields. This list is not comprehensive.

Field	Data Type	Description	Behavior and Usage
Site	Character (255)	User defines the site that should have the values specified in Compliance Window and Inspection Documentation Window when a new Inspection Task is created for an asset belonging to the site. The user can access only those sites that he has the access.	This field contains a list of sites that are available to the user, setting up the European Admin Settings. This is a required field. **Note:** After a record is created for a site, you cannot create another record for the same site.
Applicable Regulation	Character (255)	Stores the regulation type that is applicable to a task.	This field is populated with a list of regulations to be linked to a task. This field is populated with a description of system codes stored in MI_INTGY_REGULATION system code table. This field is always disabled.

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Field	Data Type	Description	Behavior and Usage
Compliance Window	Numeric	Stores the value for Compliance Window in months.	This field stores the duration in months and is copied to the Inspection Task when a new Inspection Task is created. The value for this field is specified manually.
Inspection Documentation Window	Numeric	Stores the value for Inspection Documentation Window. The UOM is measured in Months.	This field stores the duration in months is copied to the Inspection Task when a new Inspection Task is created. The value for this field is specified manually.

Field Mappings

European Technical Data and Compliance Recommendation Mappings

When you create an Inspection Plan for an Asset that has related Asset Technical Data, following field values are mapped to the Compliance Recommendation from the Asset Technical Data family.

The following table lists the Compliance Recommendations fields that are populated automatically from these sources.

Family	Asset Technical Data	Compliance Recommendation
Fields	Chamber	Chamber
	Certification	Certification
	Applicable Regulation	Applicable Regulation

The following table lists the mappings from Compliance Recommendation to the Inspection Task.

Family	Compliance Recommendation	Inspection Task
Fields	Certification	Certification
	Applicable Regulation	Applicable Regulation

Inspection Task and Inspection Event Mappings

When you generate an Inspection Report from an Inspection Task, following field values are mapped to the Inspection Event family from the Inspection Task family.

The following table lists the Inspection Event fields that are populated automatically.

Family	Inspection Task	Inspection Event
Fields	Certification	Certification
	Applicable Regulation	Applicable Regulation

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Policies

Policies

GE Digital APM provides eight Policies for the European Inspection Compliance. You can use these Policies in the Compliance Strategy Templates to generate the Compliance Recommendations in intervals specified in the Inspection Requirements for European Regulation. The following table lists the names of the Policies along with the IDs of the corresponding Compliance Strategies:

Policy Name	Description	Compliance Strategy ID
EU_PIPE_EQPT	Generates European Compliance Recommendations for Piping with respect to the Asset family.	• EU_PIPE_EV_STRAT_008 • EU_PIPE_IV_STRAT_004 • EU_PIPE_STR_STRAT_012
EU_PIPE_FLOC	Generates European Compliance Recommendations for Piping with respect to the Functional Location family.	• EU_PIPE_EV_STRAT_008 • EU_PIPE_IV_STRAT_004 • EU_PIPE_STR_STRAT_012
EU_PV_EQPT	Generates European Compliance Recommendations for Pressure Vessel with respect to the Asset family.	• EU_PV_EV_STRAT_005 • EU_PV_IV_STRAT_001 • EU_PV_STR_STRAT_009
EU_PV_FLOC	Generates European Compliance Recommendations for Pressure Vessel with respect to the Functional Location.	• EU_PV_EV_STRAT_005 • EU_PV_IV_STRAT_001 • EU_PV_STR_STRAT_009
EU_SB_EQPT	Generates European Compliance Recommendations for Steam Boiler with respect to the Asset family.	• EU_SB_EV_STRAT_007 • EU_SB_IV_STRAT_003 • EU_SB_STR_STRAT_011
EU_SB_FLOC	Generates European Compliance Recommendations for Steam Boiler with respect to the Functional Location family.	• EU_SB_EV_STRAT_007 • EU_SB_IV_STRAT_003 • EU_SB_STR_STRAT_011
EU_SPV_EQPT	Generates European Compliance Recommendations for Simple Pressure Vessel with respect to the Asset family.	• EU_SPV_EV_STRAT_006 • EU_SPV_IV_STRAT_002 • EU_SPV_STR_STRAT_010
EU_SPV_FLOC	Generates European Compliance Recommendations for Simple Pressure Vessel with respect to the Functional Location family.	• EU_SPV_EV_STRAT_006 • EU_SPV_IV_STRAT_002 • EU_SPV_STR_STRAT_010

EU_PIPE_EQPT

This Policy is used in the Compliance Strategies to generate European Compliance Recommendations for Piping with respect to the Asset family. The following image illustrates the model of the EU_PIPE_EQPT policy:

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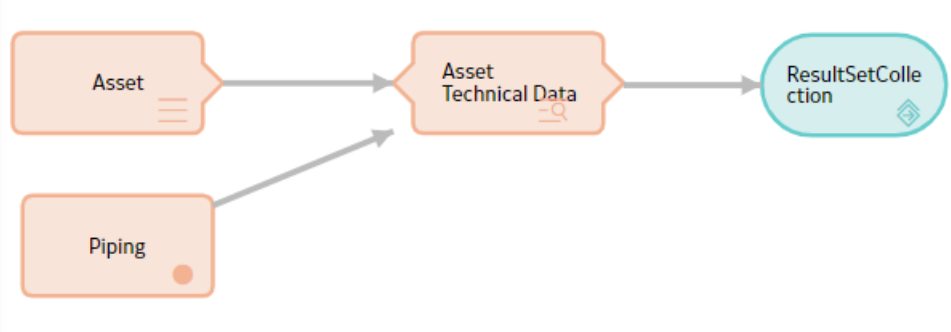

This policy uses two input nodes:

- Asset: This is an entity node which represents the Equipment family.
- Piping: This is a constant node of string `Piping`.

The node, Asset Technical Data Filter is a Query node that runs the EU_Piping_Filter_EQ query. The Asset Technical Data Filter node uses the Entity Key of the Asset represented by the Asset node and the string represented by the Piping node as prompts for the EU_Piping_Filter_EQ query. When the Policy is executed, it generates a result set that contains the following information:

- The Entity Key of the Asset Technical Data related to the Asset represented by the Asset node.
- The Family ID of Asset Technical Data related to the Asset represented by the Asset node.
- The Strategy ID used to generate the Compliance Recommendation.

The policy then uses this information in the result set to generate the Compliance Recommendations and map the data to it, using the Compliance Recommendation Mapping family.

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System Code Tables

European Inspection Management System Code Tables

The following table lists the System Code Tables for European Inspection Management:

System Table ID	System Table Description	System Code ID	System Code Description	Behavior and Usage
MI_COMPLIANCE_STANDARD	Compliance Standard	API 510	API 510	This system code table stores the certification value. The values in this field are populated from a drop-down list box.
		API 653	API 653	
		NBIC	NBIC	
		API 650	API 650	
		ASTM 1137	ASTM 1137	
		DIN 43760	DIN 43760	
		API 570	API 570	
		TC-1A MT II	ASNT TC-1A MT Level II	
		TC-1A PT II	ASNT TC-1A PT Level II	
		TC-1A RT II	ASNT TC-1A RT Level II	
		TC-1A UT Thickness II	ASNT TC-1A UT Thickness	
		TC-1A UT Shearwave II	ASNT TC-1A UT Shearwave Level II	
		ZUS	ZUS	
		BP	bP	
MI_INTGY_FLUID_CTGY	Integrity Fluid Category	Explosive	Explosive	This system code table stores the fluid category list. The values in this field are populated from a drop-down list box.
		Flammable Category 1	Flammable Category 1	
		Flammable Category 2	Flammable Category 2	
		Flammable Category 3	Flammable Category 3	
		Pyrophoric	Pyrophoric	
		Acute Toxic Category 1	Acute Toxic Category 1	
		Acute Toxic Category 2	Acute Toxic Category 2	
		Oxidising	Oxidising	
		Corrosive	Corrosive	
		Others	Others	

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System Table ID	System Table Description	System Code ID	System Code Description	Behavior and Usage
NR13_FLAMMABLE	NR13_FLAMMABLE	C	Combustible	This system code table stores the type of fluid. The fluid type is either Combustible or Flammable.
		I	Flammable	
FLUID TYPES	Fluid Types	Gas	Gas	This system code table stores the type of fluid. The fluid type is either Gas or Liquid.
		Liquid	Liquid	
MI_INTGY_ASSET_TYPE	Integrity Asset Type	Steam Boiler	Steam Boiler	This system code table is required to calculate certification requirements for the asset of the following types: • Pressure Vessel • Simple Pressure Vessel • Steam Boiler • Piping
		Pressure Vessel	Pressure Vessel	
		Simple Pressure Vessel	Simple Pressure Vessel	
		Piping	Piping	
MI_INTGY_REGULATION	Integrity Inspection Regulations	European Inspection Regulation	European Inspection Regulation	This system code table is populated with a list of European Inspection regulations to be linked to a task. This field is always disabled.
MI_MAPPING_REFERENCE	MI Mapping Reference	ATD - CR	Asset Technical Data - Compliance Recommendation	This system code table stores the references of a Compliance Recommendation Mapping record
MI_INTGY_FLUID_NAME	Integrity Fluid Name			This system code table stores a list of fluid names. You can choose from the baseline values, populated from a drop-down list box
MI_INTGY_FLUID_GROUP	Integrity Fluid Group	1	1	This system code table specifies the fluid group according to Table - F.
		2	2	

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System Table ID	System Table Description	System Code ID	System Code Description	Behavior and Usage
MI_CHAMBER	Chamber	AHRS	Half pipe jacket	This system code table information about the type of chamber. The values in this field are populated from a drop-down list box.
		AR	Jacket	
		AVRS	Full pipe jacket	
		DISK	Disk	
		FARM	Loading arm	
		GASK	Gasket	
		GAUG	Gauge	
		GSMT	Total object	
		HEAD2	Head2	
		HEAD	Head1	
		IR	Interior	
		IVRS	Interior coil	
		JAC2	Jacket 2 chamber	
		JAC3	Jacket 3 chamber	
		JACK	Jacket 1 chamber	
		NOZZ	Nozzles	
		PRDR	Hot chamber	
		RDDR	Tube chamber	
		RUDR	Shell chamber	
		SHEE	Sheet	
		SHEL	Shell	
		SLTG	Hose	
		SORA	Miscelleneous chamber	
		SRVR	Cold chamber	
		TUBE	Tube	
		TUSH	Tubesheet	

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System Table ID	System Table Description	System Code ID	System Code Description	Behavior and Usage
EU_INSP_INST	European Inspection Instructions	AwSV-RT	AwSV - Recurrent Test	This system code table stores the value selected in the Inspection Instruction. The values in this field are populated from a drop-down list box.
		AwSV-BEF-COM-SC	AwSV Test Before Commissioning - After a Significant Change	
		AwSV-BEF-COM-BR	AwSV Test Before Commissioning - Before Restarting	
		AwSV-BEF-COM_FT	AwSV Test Before Commissioning - For The First Time	
		AwSV-Decom	AwSV Test When Decommissioned	
		D-CHK-BEF-STRT-UP-RI	D -Check Before Start-Up - After a Change Requiring Inspection	
		D-CHK-BEF-STRT-UP-FT	D -Check Before Start-Up - For The First Time	
		D-RI-PS	D -Repeated Inspection -Checking the Pressure System	
		D-RT-Internal	D -Repeated Test - Internal Test	
		D-RI-OTST	D -Repeated Test - Outside Test and Strength Test	
		D-PI-External	D-Periodic Inspection - External Inspection	
		D-PI-ST	D-Periodic Inspection-Strength Test	
		EX-BEF-COM-FT	EX Test Before Commissioning - For The First Time	
		EX-BEF-COM-RI	EX Test Before Start-Up After a Change Requiring Inspection	
		EX-PI-5.1	EX-Periodic Inspection -5.1	
		EX-PI-5.3	EX-Periodic Inspection -5.3	
		EX-RT-5.2	EX-Recurrent Test -5.2	
		INSP-REPORT	Inspection Report	
		RESUME	Resume	

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System Table ID	System Table Description	System Code ID	System Code Description	Behavior and Usage
MI_EN_DOC_CTGY	Inspection	Test Certificate by ZUS	Test Certificate by ZUS	This system code table stores the value selected in the Inspection Document Category. The values in this field are populated from a drop-down list box.
		Test Record by Company Inspector	Test Record by Company Inspector	
		Test Report by Subcontractor	Test Report by subcontractor	
MI_EU_TASK_RESCHEDULE	Inspection	NXT_DT_BASED_ON_COMPL_DATE	Next Date Based on Completion Date	This system code table captures the information based on how the Next Date field is calculated. The field can be calculated either by the Completion Date or the Previous Next Date. This field is always disabled.
		NXT_DT_BASED_ON_PREV_NXT_DT	Next Date Based on Previous Next Date	

Queries

Queries

The following table lists the queries for European Inspection Management:

Name of the Query	Query Description
EU_Available_Assets_Piping_EQP	Retrieves all the piping equipment available for linking to a Compliance Strategy Template.
EU_Available_Assets_Piping_FLOC	Retrieves all the piping functional locations available for linking to a Compliance Strategy Template.
EU_Available_Assets_PressureVessel_EQP	Retrieves all the pressure vessel equipment available for linking to a Compliance Strategy Template.
EU_Available_Assets_PressureVessel_FLOC	Retrieves all the pressure vessel functional locations available for linking to a Compliance Strategy Template.
EU_Available_Assets_SPV_EQP	Retrieves all the simple pressure vessel equipment available for linking to a Compliance Strategy Template.
EU_Available_Assets_SPV_FLOC	Retrieves all the simple pressure vessel functional locations available for linking to a Compliance Strategy Template.
EU_Available_Assets_SteamBoiler_EQP	Retrieves all the steam boiler equipment available for linking to a Compliance Strategy Template.
EU_Available_Assets_SteamBoiler_FLOC	Retrieves all the steam boiler functional locations available for linking to a Compliance Strategy Template.

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Name of the Query	Query Description
EU_Piping_Filter_EQ	Retrieves all the asset technical data records related to a piping equipment.
EU_Piping_Filter_FL	Retrieves all the asset technical data records related to a piping functional location.
EU_PresssureVessel_Filter_EQ	Retrieves all the asset technical data records related to a pressure vessel equipment.
EU_PresssureVessel_Filter_FL	Retrieves all the asset technical data records related to a pressure vessel functional location.
EU_SimplePressureVessel_Filter_EQ	Retrieves all the asset technical data records related to a simple pressure vessel equipment.
EU_SimplePressureVessel_Filter_FL	Retrieves all the asset technical data records related to a simple pressure vessel functional location.
EU_SteamBoiler_Filter_EQ	Retrieves all the asset technical data records related to a steam boiler equipment.
EU_SteamBoiler_Filter_FL	Retrieves all the asset technical data records related to a steam boiler functional location.

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Chapter 5

Admin

Topics:

- Create European Admin Settings
- Delete a European Admin Settings Record

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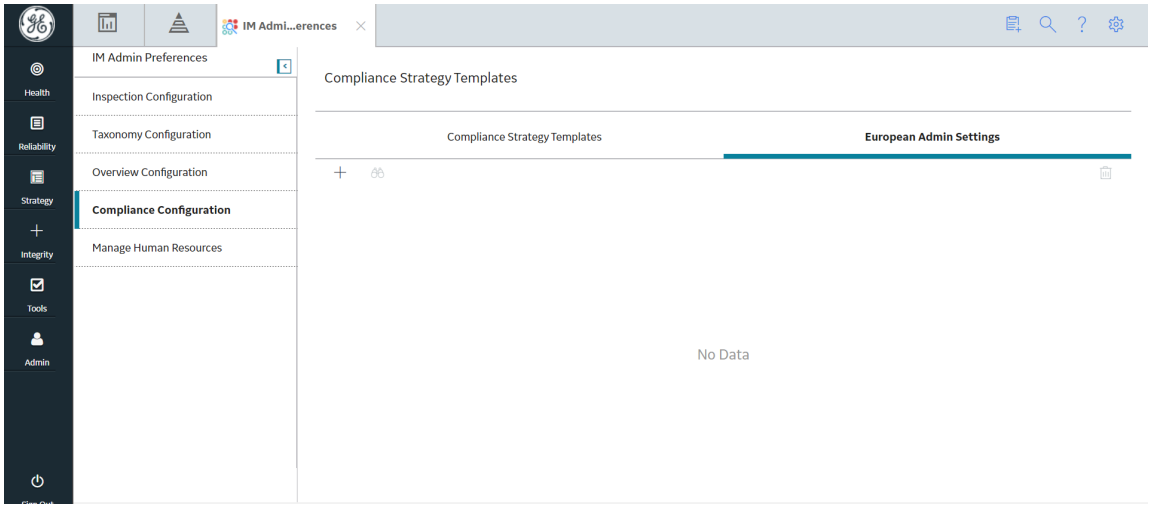
Create European Admin Settings

About This Task

The European Admin Settings family stores site-specific Compliance related information which is mapped to a newly created Inspection Task for the site.

Procedure

1. In the module navigate menu select **Admin** > **Application Settings** > **Inspection Management**.
   The **IM Admin Preferences** page appears.
2. Select **Compliance Configuration**.
   The **Compliance Strategy Templates** workspace appears.
3. Select the **European Admin Settings** tab.
   The **European Admin Settings** section appears.



4. Select + .
   The **New European Admin Settings** workspace appears, displaying the European Admin Settings datasheet.
5. In the datasheet, enter values in the available fields.
6. Select .
   A new site-specific record is created in the **European Admin Settings** datasheet.

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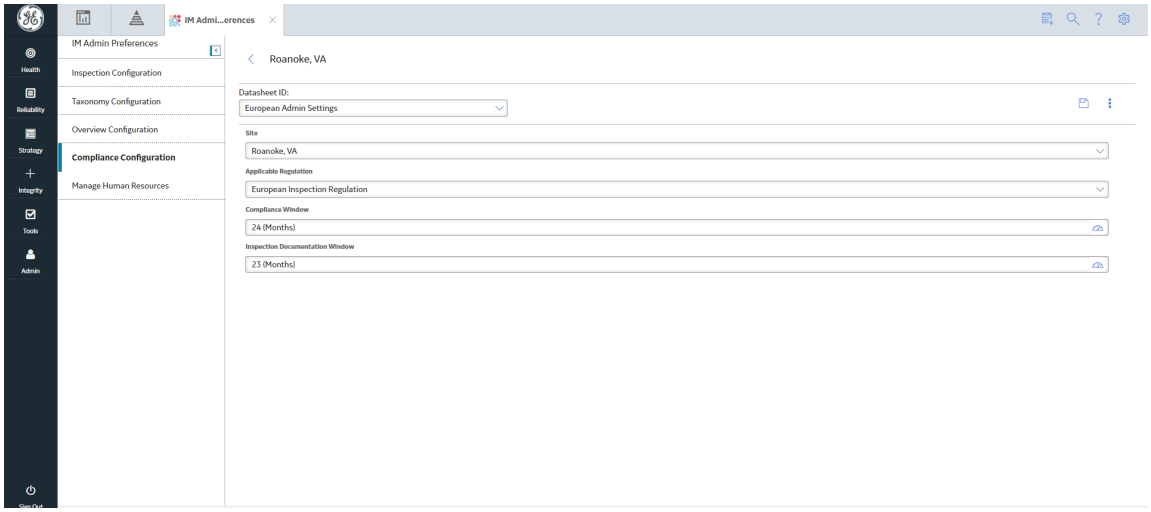

Note: To print the record, select , and then select **Print**. The records is printed in the PDF format and downloaded to the default download directory.

Delete a European Admin Settings Record

About This Task

You can delete a site-specific record stored in the European Admin Settings list.

Note: When you delete an existing record from the European Admin Settings list that is already mapped to an European Inspection Task, the Inspection task will not be impacted by this change.

Procedure

1. In the module navigate menu select **Admin** > **Application Settings** > **Inspection Management**.
   The **IM Admin Preferences** page appears.
2. Select **Compliance Configuration**.
   The **Compliance Strategy Templates** workspace appears.
3. Select the **European Admin Settings** tab.
   The **European Admin Settings** section appears, displaying the list of available records in the **European Admin Settings** tab.
4. Select the check box next to the record you want to delete and then, select .
   A window appears, asking you to confirm that you want to delete the record.

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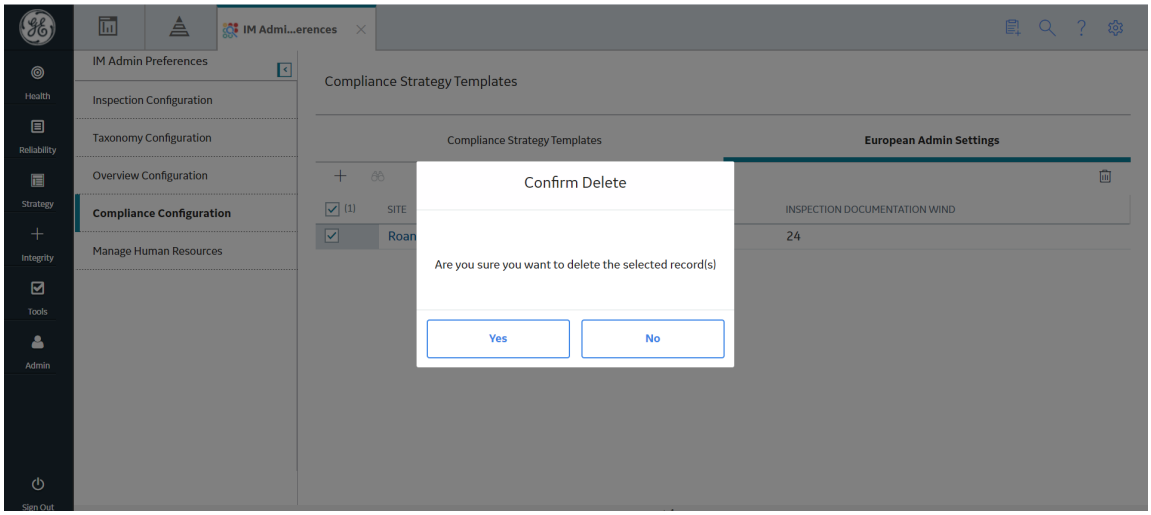

5. Select **Yes**.
   The record is deleted.

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