



Scope

The following is in and out of scope.

In scope	Out of scope
Carsealed/locked valves.	<ul style="list-style-type: none"> Valves secured via other means. MOC processes. EIP Procedures.

Operating carsealed/locked valves

Only operate carsealed/locked valves:

- as part of an approved procedure or Energy Isolation Procedure (EIP).
- during an emergency.

Installing a carseal/lock

When installing a carseal/lock:

- Install** such that the valve cannot be manipulated without breaking the device or the device being purposefully moved.
- Install** a replacement carseal or lock when valve is returned to normal position.

When carseals/locks are required

Carseals/locks are required on the following:

Valves	<ul style="list-style-type: none"> Valves identified during Process Hazard Analysis as safety critical protections (include Independent Protection Layers and dependencies). Inlet, outlet, and remote sensing block valves on Pressure Relief Devices. Remotely located root valves. Thermal and relief path valves. Any valve determined by operations and engineering.
Fire water system	<ul style="list-style-type: none"> Main, foam, hydrant and standpipe valves. Pumps (include valves between tank and pump). Sprinkler systems and their water supply.

Carseal/lock lists

Operations maintains carseal/lock lists that contain the following:

- Description of the valve function.
- Valve location and tag number (if applicable).
- Specified position.
- Reason for carseal/lock.

Update P&IDs

When carseals/locks are added or removed, the facility engineer must conduct MOC and update the P&IDs. Contact the facility engineer for assistance.

Pre-start up verification

Conduct a pre-start up verification of carseals/locks before starting up a process system, train, or facility.



Records of carsealed/locked valves

The record list of carseals/locks is controlled by Operations. The lists must mirror the P&IDs. Carseals/locks are designated on P&IDs as follows:

CSO	CSC	LO	LC
Carsealed open	Carsealed closed	Locked open	Locked closed



NOTE: P&IDs are the source location documents for carseals/locks.

Tagging guidelines for carsealed/locked valves

Tagging guidelines for carsealed/locked valves.

Identified by PHA as safety critical protection	<ul style="list-style-type: none"> Must have own functional location in SAP.
Immediately up or downstream of PRD	<ul style="list-style-type: none"> Do not need to be tagged. PRD functional location is unique identifier.
Remotely located root valves	<ul style="list-style-type: none"> Instrument's functional location should serve as the unique identifier for the root valve.
Bypass valves around control valves	<ul style="list-style-type: none"> Control valve functional location should serve as the unique identifier for the bypass valve.
All other valves	<ul style="list-style-type: none"> Unique identifiers are not required unless deemed necessary by Operations.

Facility carseal/lock inspections

Facility carseal/lock inspections must be managed using a PM01:

Frequency	Inspected twice per year by Operations.
Inspection Elements	<ul style="list-style-type: none"> Date of inspection. Individual doing the inspection. Carseals/locks found intact with valve in correct position. Carseals/locks found missing. Valves found out of position. Reason for carseal/lock.

Attach a written record log to the associated Document Information Record (DIR) in SAP as a part of the PM.

Fire water system carseal/lock inspections

Carseals/locks used in fire water systems must meet the requirements above as well as the following:

Carseals	Locks
Inspect and document weekly.	Inspect and document monthly.