Adjust Swagelok Model KHF1D Pressure Control Valve at 242-A Evaporator

Table of Contents

1.0 PURPOSE AND SCOPE ........................................................................................................ 3
  1.1 Purpose ............................................................................................................................... 3
  1.2 Scope ................................................................................................................................... 3

2.0 INFORMATION ....................................................................................................................... 3
  2.1 General Information ............................................................................................................. 3

3.0 PRECAUTIONS AND LIMITATIONS .............................................................................. 4
  3.1 Personnel Safety ................................................................................................................... 4
  3.2 Radiation and Contamination Control .................................................................................... 4

4.0 PREREQUISITES .................................................................................................................. 5
  4.1 Special Tools, Equipment and Supplies .................................................................................. 5
  4.2 Performance Documents ...................................................................................................... 5
  4.3 Field Preparation .................................................................................................................. 5

5.0 PROCEDURE ....................................................................................................................... 6
  5.1 Obtain As-Found and As-Left Values .................................................................................. 6
  5.2 Restoration ............................................................................................................................ 8
  5.3 Acceptance Criteria .......................................................................................................... 8
  5.4 Review .................................................................................................................................. 8
  5.5 Records .................................................................................................................................. 9

Figure 1 – Swagelok Pressure Control Valve with Gauge Port .................................................. 10
Adjust Swagelok Model KHF1D Pressure Control Valve at 242-A Evaporator

Figure 2 – Pressure Control Valve and Indicator with Test Port

CONTINUOUS

Type
Document No.
Rev/Mod
Release Date
Page
CONTINUOUS
6-PCD-874
B-0
02/03/2016
2 of 11
1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for testing and adjusting Swagelok Model KHF1D Pressure Control Valve and verifying associated pressure gauge.

1.2 Scope

This procedure may only be performed on Swagelok Model KHF1D Pressure Control Valve when the 242-A Evaporator is in the “SHUTDOWN” mode.

This procedure applies to Swagelok Model KHF1D Pressure Control Valve and associated pressure gauge.

2.0 INFORMATION

2.1 General Information

Pressure gauge PI-CA1-4 is glycerin filled and will not be calibrated, therefore if gauge is not in calibration replacement is necessary.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 If a lock and tag is required during the performance of this procedure, comply with the DOE-0336, Hanford Site Lockout/Tagout Procedure.

3.1.2 The Hazards for this Procedure are covered under the Technical Procedure Hazards Analysis Determination (GHA).

3.1.3 Failure to use protective equipment when working on or near energized systems could result in serious injury. Job specific protective equipment requirements should be addressed during the pre-job brief and be in accordance with TFC-ESHQ-S_IS-C-02.

3.2 Radiation and Contamination Control

3.2.1 Work in radiological areas will be performed using a radiological work permit following review by Radiological Control per ALARA Work Planning procedure, TFC-ESHQ-RP_RWP-C-03.

3.2.2 When disconnecting, breaching or opening systems or system components that are currently or previously connected to waste tanks or waste transfer systems;

- HPT coverage is required when breaching system
- A damp rag will be used to contain the breach until radiological verifications have been performed.
4.0 PREREQUISITES

4.1 Special Tools, Equipment and Supplies

The following supplies may be needed to perform this procedure:

- M&TE Pressure Calibrator (i.e. Druck)
- Damp cloth (to cover system breach)
- Other tools, equipment and supplies as identified by Shift Manager/OE/FWS/User.

4.2 Performance Documents

The following documents may be needed to perform this procedure:

- DOE-0336, Hanford Site Lockout/Tagout Procedure
- H-2-98988 Sheet 1
- H-2-99053 Sheet 6
- 6-PCD-509 Pressure and Vacuum Gauges Calibration

4.3 Field Preparation

4.3.1 REQUEST Operations to configure system to allow performance of this procedure.

4.3.2 NOTIFY HPT coverage is required during system breach.

4.3.3 IF Lockout/tagout is required, ENSURE lockout/tagout and overlocking requirements have been satisfied per DOE-0336, Hanford Site Lockout/Tagout Procedure.
5.0 **PROCEDURE**

5.1 **Obtain As-Found and As-Left Values**

5.1.1 IF Lockout/tagout was applied, ENSURE lockout/tagout and overlocking requirements have been satisfied per DOE-0336, Hanford Site Lockout/Tagout Procedure.

**NOTE** - PCV-CA1-4 and PI-CA1-4 are mounted together on the instrumentation rack at the 5th floor Evaporator Condenser Instrumentation Room.

- Pressure gauge PI-CA1-4 is glycerin filled and will not be calibrated, therefore if gauge is not within calibration replacement is necessary.

5.1.2 CLOSE valve 5-3G (Figure 2) for test port and gauge TP-CA1-4 / PI-CA1-4.

5.1.3 NOTIFY HPT coverage is required during system breach.

5.1.4 REMOVE cap from Test Port TP-CA1-4 mounted between PCV-CA1-4 and PI-CA1-4 AND SIMULTANEOUSLY PLACE a damp cloth over open port.

5.1.5 AFTER HPT survey is complete, PERFORM one of the following:

5.1.5.1 IF performing Bench Test on pressure gauge PI-CA1-4, REMOVE AND TRANSPORT PI-CA1-4 to shop for testing per 6-PCD-509.

5.1.5.2 IF testing in-place CONNECT M&TE pressure calibrator to TP-CA1-4.

5.1.6 USING pressure calibrator, APPLY input values per Data Sheet AND RECORD the readings for PI-CA1-4 in the As-Found column of Data Sheet.

5.1.7 IF As-Found values for PI-CA1-4 is within specified tolerance, RECORD As-Found values in As-Left column of Data Sheet AND GO TO Step 5.1.9.

**OR**

IF As-Found values for PI-CA1-4 are not within tolerance per Data Sheet (and replacement gauge is needed) PERFORM the following:

5.1.7.1 NOTIFY FWS of pending equipment replacement/repair.
Adjust Swagelok Model KHF1D Pressure Control Valve at 242-A Evaporator

5.1 Obtain As-Found and As-Left Values

5.1.7.2 FWS NOTIFY Shift Manager AND CONTACT Planning for BOM.

5.1.7.3 REQUEST Planning to print new Data Sheet(s).

5.1.7.4 ACQUIRE new pressure gauge from material coordinator.

5.1.7.5 PERFORM bench test on new gauge per 6-PCD-509.

5.1.7.6 TRANSPORT new gauge to field location.

5.1.7.7 REPLACE defective gauge with new unit.

5.1.7.8 REPEAT Steps 5.1.6 through 5.1.7.

5.1.8 IF PI-CA1-4 was removed for bench test INSTALL PI-CA1-4.

5.1.9 SLOWLY OPEN isolation valve 5-3G.

5.1.10 USING PI-CA1-4 for pressure indication RECORD PCV-CA1-4 pressure setting in the As-Found column of the Data Sheet.

5.1.11 IF As-Found value for PCV-CA1-4 is within tolerance per Data Sheet, RECORD the value in the As-Left column of the Data Sheet AND

GO TO Restoration Section 5.2,

OR

IF As-Found value for PCV-CA1-4 is not within tolerance per Data Sheet, ADJUST pressure Control Knob to tolerance AND

RECORD the reading in As-Left column of Data Sheet.
5.2 Restoration

5.2.1 CLOSE isolation valve 5-3G for TP-CA1-4/PI-CA1-4 (see Figure 2).

5.2.2 DISCONNECT AND REMOVE Test Equipment.

5.2.3 INSTALL cap to test port TP-CA1-4.

5.2.4 OPEN isolation valve 5-3G for TP-CA1-4/PI-CA1-4.

5.2.5 CHECK equipment restoration by observing indications are consistent with expected conditions.

5.2.6 IF any problems were encountered with calibration, INFORM FWS.

5.2.7 RECORD the Test Equipment information and calibration status on Data Sheet.

5.2.8 NOTIFY Operations that testing is complete and system may be returned to desired configuration.

5.3 Acceptance Criteria

Acceptance Criteria has been met when Steps in this procedure have been satisfactorily performed and As-Left values meet the specifications and tolerance(s) per the Data Sheet.

5.4 Review

5.4.1 INFORM FWS test is complete.

5.4.2 FWS REVIEW AND ENSURE the following:

- Completed Data Sheets meet the acceptance criteria.
- Comments sections are filled out appropriately.
- Work requests needed as a result of this procedure are identified and generated.
- Work request number(s) of any work documents generated as a result of this procedure, are recorded in the Comments/Remarks section of the Data Sheet (if applicable).
5.5 Records

The performance of this procedure generates no records. However, PM Data Sheets associated with the procedure, are records and are maintained in the work package as record material.

The record custodian identified in the Company-level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.
Adjust Swagelok Model KHF1D Pressure Control Valve at 242-A Evaporator

Figure 1 – Swagelok Pressure Control Valve with Gauge Port

![Swagelok Pressure Control Valve Diagram](image-url)
Adjust Swagelok Model KHF1D Pressure Control Valve at 242-A Evaporator

Figure 2 – Pressure Control Valve and Indicator with Test Port

Excerpt From P & ID Diagram H-2-98988 Sheet 1 Rev. 14