USQ Not Required – ETF is a Hazard Category 3 Radiological Facility

**CHANGE HISTORY (≤LAST 5 REV-MODS)**

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<td>Correct Use Type</td>
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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for a safe, uniform method of calibration for Hy-Cal Model CT-859 temperature transmitter.

1.2 Scope

This procedure applies to implementing the calibration of the Hy-Cal Model CT-859 temperature transmitter.

2.0 INFORMATION

None.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Radiation and Contamination Control

3.1.1 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 Environmental Compliance

3.2.1 In the event of a spill/leak/release, notify the SOM/FWS and respond per ETF-ERP-85B-003, Emergency Spill or Release at ETF.
4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

NOTE - Measuring and Test Equipment used to collect acceptance criteria data during performance of this procedure shall meet the following requirements:
- Be within its current calibration cycle as evidenced by an affixed calibration label
- Be capable of desired range
- Accuracy is equal to or greater than M&TE tolerance specified on PM/S data sheet or is at least four times greater than specified device tolerance.

The following supplies may be needed to perform this procedure:
- CMD range 0 to 20 mA
- Decade resistance box, range of RTD on the PM/S data sheet.

4.2 Performance Documents

The following documents may be needed to perform this procedure:
- VI-1373-017-901, Temperature Transmitter Installation Instructions for Model CT-859.
5.0 PROCEDURE

5.1 Initial Set Up and Calibration Check

5.1.1 CONNECT CMD in series with output wires (Figure 1).
5.1.2 DISCONNECT RTD wires from transmitter.
5.1.3 CONNECT decade box in place of RTD.
5.1.4 VARY input per PM/S data sheet AND RECORD as-found values on data sheet.
5.1.5 IF as-found values are not within specified tolerance per data sheet, GO TO Section 5.2,

OR

IF as-found values are within specified tolerance, but deemed marginal, and optimization is desired, GO TO Section 5.2,

OR

IF as-found values are within specified tolerance, RECORD as-found values in as-left column of data sheet AND GO TO Section 5.3.

5.2 Calibration

NOTE - Vendor information displays proper dip switch setting (VI-1373-017-901) if range is being changed.

5.2.1 APPLY minimum input per PM/S data sheet AND ADJUST Zero.
5.2.2 APPLY maximum input per PM/S data sheet AND ADJUST Span.
5.2.3 REPEAT Steps 5.2.1 and 5.2.2 until both values are within tolerance.
5.2.4 VARY input per PM/S data sheet AND RECORD as-left values on data sheet.
5.3 Restoration

5.3.1 RESTORE to as-found conditions.

5.3.2 INFORM SOM test is complete and instrument/equipment/system may be returned to service.

5.4 Acceptance Criteria

Acceptance criteria has been met when steps in this procedure have been satisfactorily performed and results are recorded on the data sheet(s).

5.5 Review

5.5.1 INFORM FWS test is complete.

5.5.2 (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.

5.6 Records

The performance of this procedure generates no records. However, PM/S 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.
Figure 1 - Adjustment Locations

4 - 20 mA LOOP TERMINAL BLOCK

SPAN

ZERO

SENSOR REMOVEABLE

SHOWN WITHOUT COVER FOR CLARITY.