Bench Test Safe Leak Detector Relays

Tank Farm Maintenance Procedure

MAINTENANCE

USQ #N/A-2

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1.0 PURPOSE AND SCOPE

1.1 Purpose
This procedure provides instructions for bench testing safe leak detector relays.

1.2 Scope
This procedure involves bench testing safe leak detector relays.

2.0 INFORMATION

2.1 Terms and Definitions
- VAC - Volts Alternating Current
- VDC - Volts Direct Current.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety
3.1.1 Compliance with DOE–0359, Hanford Site Electrical Safety Program, is required when working with this procedure.

3.2 Radiation and Contamination Control
This procedure will be performed in a maintenance shop. No Radiological Work Permit or Radiological Control Engineering and technical support is required.

4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies
The following supplies may be needed to perform this procedure:
- Relay MTL 2313A General purpose trip amplifier
- Calibrated digital multi-meter
- D.C. power supply
5.0 PROCEDURE

5.1 Bench Test for Trip Amplifier (LD3)

5.1.1 CONNECT (+) lead from DC power supply to terminal 1 and (-) lead to terminal 4.

5.1.2 CONNECT 120 VAC power supply to terminals 15 and 16.

5.1.3 ADJUST DC power supply to 1.5 volts.

5.1.4 CONNECT ohm meter to terminals 12 and 13.

5.1.5 CONNECT ohm meter to terminals 10 and 11.

NOTE - For the most accurate setting, DO NOT start the adjustment with the contacts OPEN between terminals 10 and 11 or the LED OFF.

5.1.6 ADJUST the alarm set screw so the contacts between terminals 10 and 11 are CLOSED and the LED is ON.

5.1.7 VERIFY contacts are open between terminals 12 and 13.

5.1.8 SLOWLY ADJUST alarm set screw clockwise AND STOP the instant the ohm meter shows the contacts are OPEN between terminals 10 and 11 and the LED is OFF.

5.1.9 VERIFY contacts are closed between terminals 12 and 13.

5.1.10 IF complete, GO TO Section 5.2 Restoration.
5.2 Restoration

5.2.1 REMOVE all test equipment from relay.

5.2.2 DISPOSE of failed relay(s) to prevent inadvertent use.

5.3 Review

5.3.1 NOTIFY Engineer of any failed relays.

5.4 Records

No records were generated during the performance of this procedure. 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.