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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for inspecting, cleaning and energizing Programmable Logic Controller (PLC).

1.2 Scope

This procedure involves inspecting, cleaning and energizing PLCs installed at tank farm facilities.

2.0 INFORMATION

2.1 General Information

2.1.1 IF performance of any steps in this procedure is not required for procedure completion, steps not performed may be indicated by ENTERING "N/A" in appropriate Data Sheet signoff space and explained in COMMENTS/REMARKS section of Data Sheet.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

**WARNING** - Some PLCs have more than one source of power. Failure to perform a safe to work check prior to beginning work; may result in personnel injury by electrical shock.

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

3.1.2 If animal droppings or nests are found, stop work in affected area, and notify operations.

3.1.3 In order to prevent unknown beryllium particles from becoming airborne, pressurized air (canned air) will not be used to clean electrical distribution equipment in which favorable beryllium testing results have not been obtained. Pressurized air (canned air) shall not be utilized in a radiological area. Review SDS for In Tech 200 or In Tech QD, or equivalent.

3.2 Radiation and Contamination Control

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

3.3 Environmental Compliance

3.3.1 **IF** Pre-and Post-job surveys are performed, **RECORD** the RSR number in the work record.
4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following supplies may be needed to perform this procedure:
- Lint-free cleaning rags
- InTech 200 or InTech QD cleaner, or equivalent
- Soft bristle brush
- Material to place a barricade
- Warning signs (as necessary) to prevent injury to unauthorized personnel
- Other tools and equipment as identified by the user and/or FWS.

4.2 Performance Documents

The following document may be needed in performance of this procedure:
- TO-100-052, Perform Waste Generation, Segregation, Accumulation and Clean-up
- DOE-0336, Hanford Site Lockout/Tagout Procedure.

4.3 Field Preparation

4.3.1 IF barricades and warning signs are required, INSTALL barricades and warning signs.
5.0 PROCEDURE

NOTE - Because the Data Sheets are tailored to individual components, certain steps during the inspection and testing sections of this procedure may not be required.

5.1 PLC Inspection

5.1.1 IF equipment is in “PROJECT STATUS” or otherwise inaccessible, ENTER N/A on all affected Data Sheets as directed by FWS or Engineering.

NOTE - Step 5.1.2 will be performed as necessary. Step may have been addressed during performance of an outage procedure.

5.1.2 IF not documented during an outage procedure, DOCUMENT PLC configuration in the Work Package, for proper configuration during restoration.

5.1.3 ENSURE PLC is Lock and Tagged out per DOE-0336 AND INITIAL Step 1 of the Data Sheet.

WARNING
Some PLCs have more than one source of power. Failure to perform a safe to work check prior to beginning work; may result in personnel injury by electrical shock.

5.1.4 IN each PLC compartment that is opened for maintenance, PERFORM safe to work check.

5.1.5 MAKE list of associated equipment attached to PLC AND DOCUMENT on work record.
5.1 PLC Inspection (Cont.)

5.1.6 INSPECT PLC for the following:
- Signs of moisture
- Signs of overheating
- Condition of grounding conductors/straps
- Loose Connectors
- Wiring for damage or Deterioration.

RECORD inspection results in Step 2 of the Data Sheet.

5.1.7 RECORD discrepancies in the comment section.

NOTE - Cleaning may be performed with a vacuum cleaner (if the enclosure is outside of a posted surface contamination area) and/or soft bristle brushes.

5.1.8 IF the interior of the enclosure requires cleaning, CLEAN interior of enclosure, (a vacuum cleaner may be used if the enclosure is outside of a posted surface contamination area) AND

CHECK Step 3 of the Data Sheet after completion.

5.1.9 INSPECT all hardware. (i.e., lamps, and miscellaneous items associated with this equipment)

5.1.9.1 IF hardware requires adjusting or repair, ADJUST OR REPAIR all hardware. (i.e., lamps, and miscellaneous items associated with this equipment)

5.1.10 RECORD discrepancies in the comment section.
5.2 PLC Testing

5.2.1 REMOVE Lock and Tag per DOE-0336.

5.2.2 ENERGIZE PLC.

5.2.3 INSPECT PLC for any abnormal conditions.

5.2.3.1 IF abnormal conditions are observed, DE-ENERGIZE equipment AND

NOTIFY FWS of any abnormal conditions.

5.2.4 MAINTAIN PLC in an energized state for at least 6 hours AND

RECORD START time in Step 4 on Data Sheet.

5.2.5 IF directed by OE/SOM, DE-ENERGIZE PLC.

5.2.5.1 RECORD STOP time in Step 4 on Data Sheet.
5.3 Restoration

5.3.1 **RESTORE** maintained equipment to original configuration as documented in the Outage Procedure, Work Package, or Data Sheet.

5.3.2 **ENSURE** work area is clean AND **DISPOSE** of waste per TO-100-052.

5.3.3 **ENSURE** all maintained equipment is energized as requested by Operations.

5.3.4 **CONFIRM** devices associated with PLC recorded in Step 5.1.5 are operating properly AND

IF not, **CONTACT** engineering for assistance.

5.4 Review

5.4.1 **INFORM** Operations Management maintenance is complete.

5.4.2 **UPON** completion of task, **PROVIDE** data sheets (originals or a copy) to the Electrical Engineer for review.

5.4.3 **RECORD** in the comment/remarks section of the Data Sheet, work request number(s) of any work documents generated as a result of these instructions.

5.5 Records

This procedure is performed within a work package, as such, the procedure in its entirety will be maintained as a record per the Work Control process.

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.