Critical Item: Pressure Regulator (3 each)

Find Number: None

Criticality Category: 1S

SAA No: 09SY01-003 System/Area: Ansul Dry Chemical/MLP-3

NASA Part No: None PMN/ Name: K61-0741

MFG Part No: Ansul 14798 Drawing/ Sheet No: 79K07050 200-202

Function: Provides gas pressure from GN_2 cylinder to Ansul Dry Chemical tank.

Critical Failure Mode: Regulates low. FM09SY01-003.002

Failure Cause: Broken spring.

Failure Effect: Unable to release Dry Chemical in automatic mode. Possible loss of life/loss of a Space Shuttle Vehicle due to damage to Hydraulic Equipment resulting from an uncontrolled fire.

Acceptance Rationale

Design:

- This system conforms to the requirements of National Fire Protection Association Code (NFPA) 17.
- Regulators are listed by Underwriters Laboratories (UL).

Test:

- File VI OMRSD requires an annual test.
- Verify outlet pressure 220 ± 10 psig. Verify that pressure gage is within calibration.

Inspection:

- Verify functional operation annually and at component replacement.
- PMI Requires: Visually inspect for physical damage and deterioration quarterly.

Operational Use:

- None. response by Fire Services Personnel when MLP at Launch Pad:

  1. During normal Pad operation (routine operation/maintenance personnel present), Fire Services Personnel will respond within 2-9 minutes after notification from LCC Room 1P10.

  2. During hazardous operations at the Pad (access limited to essential personnel only), response time after notification of a fire would be 2-9 minutes. Fire Services Personnel will be on-site or in near proximity during all hazardous operations.

  3. During post-launch operations (no operation/maintenance personnel present), response time after notification of a fire is expected to typically be within 20 minutes.

Failure History:

- No GIDEP Alerts were reported.
- No KSC FRACA history of Failure the critical Failure Mode.
- No trouble tickets were reported.