Critical Item: Valve, Solenoid
NASA Part No: None
Mfg/Part No: ASCO / 8344G82
System: Facility Water System

Criticality Category: 1S
Total Quantity: 2

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
A156606 (SV-68)	1	Pad-A	K60-0060	007.00	79K06011 / 13
A526623 (SV-487)	1	Pad-A	K60-0060	007.00	79K06011 / 8

Function:

Controls air supply to flow control valve to pressurize open side of the actuator for the associated water control valve and provides a capability to vent the close side of the actuator for the associated water control valve.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09SY03A-001.013 Fail closed	Binding, corrosion, contamination, or failure of internal piece part Loss of capability to pressurize open side of actuator on associated water control valve and allow firex/deluge water flow to the associated area. Possible loss of life and/or vehicle during a hazardous condition.	Water valve position switch Immediate	1S

ACCEPTANCE RATIONALE

Design:

- Rated working pressure 125 psid.
- Actual working pressure 125 psid.

Test:

- OMI M2088 requires cycling of perimeter area water valves to verify proper operation.
- OMRSD, File VI requires verification of the operational function of the water valves in all modes of operation annually and at replacement. (Note: Water valve operational function verification ensures valve opens within design opening rate which also verifies solenoid valve has not failed.)

Inspection:

- OMI 6045 requires the inspection of the firex valves for signs of corrosion and/or contamination.

Failure History:

- Current data on test failures, unexplained anomalies, and other failures experienced during ground processing activities can be found in the PRACA database. The PRACA database was researched and no failure data was found on this component in the critical failure mode.

- The GIDEP failure data interchange was researched and no failure data was found on this component in the critical failure mode.

Operational Use:

Correcting Action	Timeframe
There is no action which can be taken to mitigate the failure effect.	Since no correcting action is available, timeframe does not apply.