Critical Item: Valve, Flow Control
NASA Part No: None
Mfg/Part No: Parker-Hannifin Corp / F600S
System: Facility Water System

Criticality Category: 1S
Total Quantity: 1

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
A526739 (V-79.4)	1	Pad-A	K60-0060	007.00	79K06011 / 13

Function:

Provides unrestricted air flow through the check valve for opening valve V-79, and a controlled rate of closing via the variable orifice.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09SY03A-001.004 Check valve fail closed	Corrosion, contamination, or failure of internal piece part If the check valve should fail closed, water valve V-79 will recieve some air pressure via the orifice side of the flow control valve. Water valve V-79 may open, but at a reduced rate, and may not open fast enough to provide timely fire suppression. Possible loss of life and/or vehicle during a hazardous condition.	V-79 position switch Immediate	1S

ACCEPTANCE RATIONALE

Design:
- Rated operating pressure is 5000 psig.
- Burst pressure 20000 psig.
- Actual operating pressure 125 psig.

Test:
- OMI M2067 requires cycling of FSS/RSS water valves to verify proper operation.
- OMRSD, File VI requires verification of the operational function of the water valve in all modes of operation semiannually and at replacement. (Note: Water valve operational function verification ensures valve opens within design opening rate which also verifies check valve has not failed.)

Inspection:
- OMI M6045 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.