

**USA Ground Operations CIL Sheet**

**Critical Item:** Valve, Flow Control  
**NASA Part No:** None  
**Mfg/Part No:** Deltrol Fluid Prod. Div. / F30SS  
**System:** Facility Water System

**Criticality Category:** 1S  
**Total Quantity:** 1

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
A115205 (V-79.4)	1	Pad-B	K60-0060-01	007.00	79K40019 / 12

**Function:**

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

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09SY03B-002.010  Orifice clogged	Corrosion, contamination, or failure of internal piece part.  No air could be vented from the close side of the actuator on V-79. The water valve would remain closed and prevent firex deluge water flow to hypergol/fuel cell fillport firex spray nozzles. Possible loss of life and/or vehicle during a hazardous condition.	V-79 position switch  Immediate	1S

**ACCEPTANCE RATIONALE**

**Design:**

- Rated operating pressure 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 orifice has not clogged.)

**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.