

**USA Ground Operations CIL Sheet    AUG 23 1999**

**Critical Item:** Valve, Flow Control

**Criticality Category:** 1S

**NASA Part No:** None

**Total Quantity:** 7

**Mfg/Part No:** Deltron Fluid Prod. Div. / EF20S

**System:** Facility Water System

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
A526635 (V-11A.1)	1	Pad-A	K60-0060	007.00	79K06011 / 8
A526637 (V-11.1)	1	Pad-A	K60-0060	007.00	79K06011 / 8
A526648 (V-10.1)	1	Pad-A	K60-0060	007.00	79K06011 / 7
A526652 (V-10A.1)	1	Pad-A	K60-0060	007.00	79K6011 / 7
A526656 (V-12.1)	1	Pad-A	K60-0060	007.00	79K06011 / 7
A526667 (V-57.1)	1	Pad-A	K60-0060	007.00	79K06011 / 6
A526679 (V-61.1)	1	Pad-A	K60-0060	007.00	79K06011 / 6

**Function:**

Provides unrestricted GN2 flow for opening associated water control valve via the check valve, and a controlled rate of closing through the variable orifice.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09SY03A-001.005  Check valve fail closed	Corrosion, contamination, or failure of internal piece part  Water control valve will receive some GN2 pressure via the orifice side of the flow control valve. Water valve may open but at a reduced rate, and may not open fast enough to provide timely fire suppression. Additionally, the fire alarm to the JBOSC may be inhibited since it is activated by the flow of firex water that occurs after the water control valve has been opened. Possible loss of life and/or vehicle during a hazardous condition.	Water valve position switch  Immediate	1S

**ACCEPTANCE RATIONALE**

**Design:**

- Rated operating pressure 5000 psig.
- Burst pressure 20000 psig.
- Actual operating pressure 125 psig.

**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 valve 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 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.

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- 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.