

MAR 17 1998

B/L: 7.00
SYS: PAD B WATER,
MLP-1, -2

Critical Item: Check Valve
Find Number: A51B43B (CK-21.5)
Criticality Category: 15

SAA No: 09SY03B-001, Rev. C

System/Area: Pad Water/Pad B, MLP-1,
MLP-2NASA
Part No: N/APMN/
Name: K60-0043-01/Tank Farm PipingMfg/ Crane/
Part No: 159Drawing/
Sheet No: 79K40019/4

Function: Prevents backflow of water from the service structure to the tank farm.

Critical Failure Mode/Failure Mode No: Fail closed/09SY03B-001.125

Failure Cause: Caused by corrosion, contamination or structural failure of internal piece part.

Failure Effect: Loss of Firex water supply to the FSS/RBS, including Astronaut Egress Sprays.
Possible loss of life or vehicle during a hazardous condition. Time to effect: Immediate.

ACCEPTANCE RATIONALE

Design:

	<u>Rated</u>	<u>Actual</u>
working pressure	740 psig	240 psig
Temp(°rees F)	-20 to 100	Ambient at Pad

- Body material: Carbon Steel
- Disc material: Carbon Steel with Stainless Steel Facing
- Seat material: Stainless Steel

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Test:

- System validation (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 semiannually and at replacement.

Inspection:

- Pre-mission OMI's require the inspection of the fire valves for signs of corrosion and/or contamination.

Failure History:

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

Operational Use:

- Correcting Action:

There is no action which can be taken to mitigate the failure effect.

- Timeframe:

Since no correcting action is available, timeframe does not apply.

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