

NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
WATER INLET FILTER ITEM 176 ----- SV821918-1 ()	2/1R	176FM02 Contamination breakthrough. Screen rupture.	END ITEM: Contaminants released to downstream components. GFE INTERFACE: Particles migrate into water reservoir circuit. Possible clogging of Items 135, 136, 137, 171 and 127 filter screens resulting in loss of water flow to sublimator and liquid transport circuit and loss of liquid transport circuit overpressure protection. MISSION: Terminate EVA due to loss of LCVG cooling or humidity removal. CREW/VEHICLE: None for single failure (helmet fogging). Possible loss of crewmember with loss of SOP. TIME TO EFFECT /ACTIONS: Minutes. Open purge valve and activate	A. Design - Pressure across the screen normally is small (less than 0.030 psid). The filter is a pleated wire mesh weave constructed from AISI 316L corrosion resistant steel. It is designed to withstand up to 50 psid against a maximum pressure of 25 psid. The filter is welded to a two-piece housing which is AISI 304L steel corrosion resistant steel. The weld joint is designed to withstand a 100-pound compressive force and to be leak proof and to withstand 46 psid proof pressure. The seals associated with sealing this item are viton material seals. B. Test - Component Acceptance Test: None. PDA Test: None. Certification Test: Certified for a useful life of 15 years (ref EMU1-13-046). C. Inspection - The production parts are 100% visually inspected at 10X magnification. A bubble point test is performed to check for any gaps larger than the weave of the screen. D. Failure History - None. E. Ground Turnaround - Tested for non-EET processing per FEMU-R-001, Reserve to Primary Water Tank Leakage Verification by Discharge. None for EET processing. F. Operational Use - Pre-EVA: Troubleshoot problem and if no success, consider use of third EMU. Training: Standard EMU training covers the failure mode. Operational Consideration: Generic EVA Checklist, JSC-48023, procedures Section 3 (EMU Checkout) and 4 (EVA Prep) verify hardware integrity and systems operational status prior to EVA.

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		176FM02	the SOP. TIME AVAILABLE: Minutes. TIME REQUIRED: Seconds. REDUNDANCY SCREENS: A-PASS B-PASS C-PASS	

EXTRAVEHICULAR MOBILITY UNIT
 SYSTEMS SAFETY REVIEW PANEL REVIEW
 FOR THE
 I-175 CONNECTOR PLATE AND PIN
 CRITICAL ITEM LIST (CIL)
 EMU CONTRACT NO. NAS 9-97150

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