NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
OXYGEN/WATER MANIFOLD ASSEMBLY, ITEM 385 --- SV779301-8 (1)	2/1R	385FM02: External water leakage, interface connector (HUT/OCM). CAUSE: Seal failure.	END ITEM: Water leakage to ambient. CFE INTERFACE: Depletion of the water reservoir. SOP activation may be required for defogging. MISSION: Terminate EVA when water supply drops below CWS limits. CREW/VEHICLE: None for single failure. Possible loss of crewman with loss of SOP.	A. Design - At the interface connector, one "O" ring seal prevents external leakage. The five seals prevents internal leakage. The five seals prevent a internal water leakage to the HUT and between each other. The "O" ring seal design configuration dimensions and rigidness of assembly provide squeeze under all tolerance and loading conditions. "O" Rings are made of fluorocarbon (viton). B. Test - In-Process: None for water leakage. PDA: Only the potable water line is checked directly for water leakage during PDA per SEMU-60-015. However, excessive water leakage at other locations would be detected during other water tests. Certification: The item completed the 15 year structural vibration and shock certification requirement during 8/86. No Class I engineering changes have been incorporated since this configuration was certified. C. Inspection - O-Ring grooves are 100% inspected for dimensions and surface finish. Mating fiberglass surface on HUT is 100% inspected for surface finish and flatness. A DCM/HUT gas leakage IPT is performed to verify O-Seal integrity. O-seals are inspected with a 1.5% AQL minimum per MIL-STD-105 inspection level II. D. Failure History - None.

NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
	2/1R	305/M02:		E. Ground Turnaround - The DCM/HUT interface is checked for external water leakage during Ground Turnaround per FEMU-R-001, Water Servicing, Leakage, and Gas Removal. F. Operational Use - Crew Response - Pre/PostEVA: Troubleshoot problem, if no success, consider third EMU if available. Otherwise, terminate EVA operations. EVA: When CWS data confirms loss of feedwater and cooling is insufficient, terminate EVA. Consider vacuum water recharge to recover EMU operation. Special Training - Standard training covers this failure mode. Operational Considerations - EVA checklist procedures verify hardware integrity and systems operational status prior to EVA. Flight rules define go/no go criteria related to EMU thermal control. Real Time Data System allows ground monitoring of EMU systems.