NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
		330FM04A		
COMMON MULTIPLE CONNECTOR, ITEM 330 ---------- SV778872-26 (1)	2/2	External leakage, coupled, cooling water (there are two couplings one inlet and one outlet). Failure, coupling 0-seal bypass leakage.	END ITEM: Water leakage to ambient. GFE INTERFACE: Depletion of EMU water reservoir. The airlock fill valve would be closed, preventing the leakage of vehicle water. MISSION: Terminate EVA. Loss of use of one EMU. CREW/VEHICLE: None. TIME TO EFFECT /ACTIONS: Minutes. TIME AVAILABLE: N/A TIME REQUIRED: N/A REDUNDANCY SCREENS: A-N/A B-N/A C-N/A	A. Design - The DCM half has two cooling water connectors. When coupled, each DCM cooling water coupling has three potential external leakage paths. One path is blocked by a static face type O-seal. A second path is blocked by a sliding radial O-seal and a static radial O-seal. The third path is blocked by two sliding radial O-seals. The O-seal design configuration and rigidness of assembly provide squeeze under all loading conditions of the elastomeric seals. The sliding O-seals slide on Nituff coated surfaces, minimizing the potential for seal damage. B. Test - Component Acceptance: Air-Lock Inc. ATP 9619-08 requires that with the inlet and outlet cooling water parts pressurized with water at 22.5 + .5 psig external leakage shall not exceed .15 cc/hr. PDA: None. Certification: Certified for a useful life of 15 years. C. Inspection - The "O" seals and the metallic sealing components are 100% inspected by Air-Lock, Inc. for dimensional and surface finish requirements. D. Failure History - None. E. Ground Turnaround - Tested for non-EET processing per FEMU-R-001, Water Servicing, Leakage and Gas Removal. FEMU-R-001 Para 8.2 EMU Preflight KSC Checkout for EET processing. F. Operational Use - Crew Response - Pre/PostEVA: Troubleshot problem, if no success terminate EVA operations. Special Training - Standard EMU 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.

EXTRAVEHICULAR MOBILITY UNIT

SYSTEMS SAFETY REVIEW PANEL REVIEW

FOR THE

I-330 COMMON MULTIPLE CONNECTOR

CRITICAL ITEM LIST (CIL)

EMU CONTRACT NO. NAS 9-97150

Prepared by: _____ 5/22/02
HS - Project Engineering

Approved by: _____ 6/26/02
NASA – ~~SSA~~/SSM
455

_____
HS - Reliability

_____
NASA – EMU/SSM

_____
HS - Engineering Manager

_____ 6/26/02
NASA - S &MA

_____ 6/27/02
NASA - MOD

_____ 7/1/02
NASA - Crew

_____ 7-1-02
NASA - Program Manager for Brian Johnson