

FMEA  
EMU FAILURE MODE, EFFECT ANALYSIS

01/02/90 SUPERSEDES / /

ANALYSIS:

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Date: 04/12/90

NAME P/N QTY	FUNCTION	FAILURE MODE & CAUSES	MISSION PHASE	FAILURE EFFECT	FAILURE DETECTION FLIGHT/GROUND	TIME TO EFFECT/ ACTIONS	CRIT	REMARKS/ HAZARD	REF
WATER RELIEF VALVE, ITEM 142 ----- SV769405-3 (1)	Relieves reserve feedwater to the primary feedwater line when the primary feedwater tank is empty. The valve opens at 4-5 psid.	142FMO1: Internal leakage, fails to close.  CAUSE: Contamination, diaphragm leakage, seat. Failure, spring fractures, plunger jam. Housing seal bypass leakage.	PREEVA  EVA	END ITEM: Internal water flow path through valve seat.  GTE INTERFACE: Use of reserve water tank feedwater during normal EVA. Unable to provide a 30 minute feedwater supply warning upon depletion of the primary water tank. Possible helmet fogging.  MISSION: None for single failure. No warning that 30 minute reserve water is being consumed.  CREW/VEHICLE: None for single or double (external water leak) failure. Possible loss of crewman with loss of SOP.	FLIGHT: No.  GROUND: Yes. FEME-R-001, Para. 7.3.3.1.1. 16 Reserve to Primary Water Tank Leakage Verification by Discharge.	None. 11 no feedwater is available the SOP can be activated by opening the purge valve to obtain cooling/ defog.  TIME AVAILABLE: N/A  TIME REQUIRED: N/A	3/18  A-PASS B-N/A C-PASS	Redundant path is the rest of the water system and the SOP. Water relief valve is standby redundancy. The "M" screen does not apply.	None.

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ATTACHMENT  
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