

FMEA
 EMU FAILURE MODE, EFFECT ANALYSIS

01/02/90 SUPERSEDES / /

ANALYSIS:

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NAME P/M BY	FUNCTION	FAILURE MODE & CAUSES	MISSION PHASE	FAILURE EFFECT	FAILURE DETECTION FLIGHT/GROUND	TIME TO EFFECT/ ACTIONS	CRIT	REMARKS/ HAZARD	REF
DISPLAY AND CONTROLS ELECTRONICS, ITEM 350 ----- SU792291 (1)	Provides current limiting for EVC, feedwater solenoid and CLW solenoid power. Provides optical isolation and discrete signal conditioning for CWS input discretes and EVC Iam discretes. Contains battery current and voltage sense circuits, DCN display, and provides secondary power to DCN display, CWS, and sensors.	SS04M05: feedwater valve (137) current limiter fails shorted (input to output). CAUSE: Electrical short in wiring or component.	PREEVA EVA	EMU ITEM: Loss of overcurrent protection of the DCN for a short in the feedwater power line. SFE INTERFACE: None for single failure. Subsequent failure (short) could cause EMU power failure. MISSION: None for single failure. Terminate EVA for subsequent failures that result in EMU power loss. CREW/VEHICLE: None for single or double failure. Possible loss of crewman with loss of SOP.	FLIGHT: No. GROUND: Yes. FEMU-R-001, Para. F.3.3.2.1.1, 3 EVC and 4M Valve Current Limiter Test.	None. TIME AVAILABLE: N/A TIME REQUIRED: N/A	3/PR A-PASS B-PASS C-PASS	The redundant paths are the electrical system and the SOP. The CWS measures battery current and issues a warning if pre-selected limits are exceeded. Circuit breakers (current limiters) are standby redundant.	None.