

FMEA
EMU FAILURE MODE, EFFECT ANALYSIS

01/02/90 SUPERSEDES / /

ANALYST:

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NAME P/N QTY	FUNCTION	FAILURE MODE & CAUSES	MISSION PRIORITY	FAILURE EFFECT	FAILURE DETECTION FLIGHT/GROUND	TIME TO EFFECT/ ACTIONS	CRIT	REMARKS/ HAZARD	REF
PRESSURE TRANSDUCER FEEDWATER SUPPLY, ITEM 1320 ----- SV767793-5 ----- SV767793-7 (1)	Measures water reservoir pressure, feedwater side. Pressure sensor range is 0-40 psia.	1320/FM01: Drifts high, fails full scale. CAUSE: Electrical open in the resistive cell between the wiper and ground. Mechanical shock causes a misalignment between the resistive element and the wiper. Failure in the linkage bearing surfaces causes high friction.	EV4	EMU ITEM: False indication of high water pressure. GFE INTERFACE: Unable to detect when the emergency water supply is on-line. MISSION: None for single failure. Terminate EMU with subsequent loss of feedwater for cooling, and dehumidification. CREW/VEHICLE: None for single failure. Possible loss of crewmen with loss of SOP.	FLIGHT: Yes. Logging of helmet. GROUND: Yes. FEMU-R-001, Para. 7.3.3.2.1.1. 19, Transducer and FIME DCM Gauge Calibration Check. N/A	None. TIME AVAILABLE: N/A	3/1R A-PASS B-PASS C-PASS	Redundant paths are the feedwater supply loop components and the SOP. No warning given for this failure. RIDS can monitor water pressure and alert the crewmen as a crew workaround. Status check will show failed sensor. If detected, terminate mission and return to vehicle. With loss of feedwater, cooling and dehumidification will be lost. Activate SOP for helmet damage.	None.