

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPD&C - SMK DET/FIRE SUP FMEA NO 05-6VF-2028 -4 REV:01/29/81

ASSEMBLY : PANEL L1A1		CRIT. FUNC: 1
P/N RI : ME452-0061-4130		CRIT. HDW: 1
P/N VENDOR:	VEHICLE	102 103 104
QUANTITY : 3	EFFECTIVITY:	X X X
: ONE PER/AV BAY	PHASE(S):	PL LO X CO DO X LS
: THREE PER VEHICLE		

		REDUNDANCY SCREEN: A- B- C-	
PREPARED BY:		APPROVED BY:	APPROVED BY (NASA):
DES <i>JWB</i>	J BROWN	DES <i>JWB</i>	SSM <i>H.A. Rutter Jr</i>
REL <i>JWB</i>	M HOVE	REL <i>M. J. C. the 1-30-83</i>	REL <i>J.B. Van der Bruggen 2/10/83</i>
QE <i>JWB</i>	J COURSEN	QE <i>JWB</i>	QE <i>J.B. Van der Bruggen 2/10/83</i>
			Rel <i>Line 11/10/83</i>

ITEM:

SWITCH, PUSHBUTTON, FIRE SUPPRESSION "AGENT DISCH" BAY 1,2,3.

FUNCTION:

INITIATES THE 'FIRE' COMMAND TO THE AVIONICS BAY FIRE SUPPRESSANT CONTAINS DUAL LAMPS FOR VISUAL INDICATION OF FIRE SUPPRESSANT DISCHARGE 31V73A1A1V S4, S5, S6

FAILURE MODE:

FAILS OPEN, SHORT-TO-CASE (GROUND).

CAUSE(S):

PIECE PART STRUCTURAL FAILURE, CONTAMINATION, MECHANICAL SHOCK, THERMAL STRESS, VIBRATION, PROCESSING ANOMALY.

EFFECT(S) ON:

- (A) SUBSYSTEM (B) INTERFACES (C) MISSION (D) CREW/VEHICLE
- (A) LOSS OF FIRE COMMAND TO THE ASSOCIATED AVIONICS BAY FIRE SUPPRESSION PIC.
- (B) INABILITY TO EXTINGUISH FIRE IN AVIONICS BAY VIA FLIGHT DECK CONTROL PANEL (PORTABLE EXTINGUISHERS CANNOT BE USED BECAUSE THE CREW IS CONFINED TO THEIR SEATS DURING LAUNCH AND DEORBIT).
- (C,D) POSSIBLE LOSS OF CREW/VEHICLE IS CAUSED IF COMBUSTION IS SUPPORTED SINGLE-STRING EMERGENCY SYSTEM FOR LAUNCH AND DEORBIT.

DISPOSITION & RATIONALE:

- (A) DESIGN (B) TEST (C) INSPECTION (D) FAILURE HISTORY (E) OPERATIONAL USE
- (A-D) DISPOSITION AND RATIONALE
REFER TO APPENDIX A, ITEM NO. 3 PUSHBUTTON SWITCH.
- (B) GROUND TURNAROUND TEST
PIC CIRCUIT TESTS PERFORMED PRIOR TO EACH FLIGHT.

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(E) OPERATIONAL USE

POWER DOWN AFFECTED AVIONICS EQUIPMENT.