

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPD&C - SMK DET/FIRE SUPPMEA NO 05-6VF-2302 -3 REV:01/29/88

ASSEMBLY : FWD LCA 1,2,3	CRIT. FUNC: 1
P/N RI : MC450-0018-0004	CRIT. HDW: 1
P/N VENDOR:	VEHICLE 102 103 104
QUANTITY : 3	EFFECTIVITY: X X X
: ONE PER FWD LCA	PHASE(S): PL LO X OO DO X LS
: 1,2 & 3	

PREPARED BY:	REDUNDANCY SCREEN: A- B- C-	APPROVED BY (NASA):
DES <i>[Signature]</i> J BROWN	DES <i>[Signature]</i>	SSM <i>[Signature]</i>
REL M HOVE	REL <i>[Signature]</i>	REL <i>[Signature]</i> 2/10/88
QE J COURSEN	QE <i>[Signature]</i>	QE <i>[Signature]</i> 2/1/88
		REL <i>[Signature]</i> 2/4/88

ITEM:
PIC, PYROTECHNIC INITIATOR CONTROLLER, FIRE SUPPRESSANT SYSTEM.

FUNCTION:
PROVIDES POWER TO FIRE THE AVIONICS FIRE SUPPRESSANT NSI. 81V76A16 PIC1.
82V76A17 PIC1, 83V76A18 PIC2.

FAILURE MODE:
LOSS OF OUTPUT

CAUSE(S):
PIECE PART FAILURE, CONTAMINATION, MECHANICAL SHOCK, THERMAL STRESS.
VIBRATION.

EFFECT(S) ON:
(A) SUBSYSTEM (B) INTERFACES (C) MISSION (D) CREW/VEHICLE

(A) ASSOCIATED NSI WILL NOT BE INITIATED WHEN REQUIRED IN ASSOCIATED AVIONICS BAY.

(B) INABILITY TO EXTINGUISH A FIRE IN THE AVIONICS BAY (PORTABLE EXTINGUISHERS CANNOT BE USED BECAUSE THE CREW IS CONFINED TO THEIR SEATS DURING LAUNCH AND DEORBIT).

(C,D) POSSIBLE LOSS OF CREW AND VEHICLE IF COMBUSTION IS SUPPORTED. SINGLE STRING EMERGENCY SYSTEM DURING 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 H, ITEM NO. 1 - PIC

(B) GROUND TURNAROUND TEST
PIC CIRCUIT TESTS PERFORMED PRIOR TO EACH FLIGHT.

(E) OPERATIONAL USE
POWER DOWN AFFECTED AVIONICS EQUIPMENT.