

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : LIFE SUPPORT

FMEA NO 06-2F -330050-2

REV: 10/29/8

ASSEMBLY : FIRE SUPPRESSION

P/N RI :

P/N VENDOR: SEB26100001-256

QUANTITY : 3

: 1 PER EXTINGUISHER

:

VEHICLE

102

103

104

EFFECTIVITY:

X

X

X

PHASE(S):

PL

LO

X

OO

DO

X

LS

CRIT. FUNC: 1

CRIT. HDW: 1

PREPARED BY:

DES

D. WADA

REL

M. RAGUSA

QE

W. SMITH

REDUNDANCY SCREEN:

A-

B-

C-

APPROVED BY:

DES

REL

QE

APPROVED BY (NASA):

SSM

REL

QE

*H. J. Rutter* 10/29/8

*W. J. ...* 10/29/8

*...* 11-3-97

ITEM:

NASA STANDARD INITIATOR (NSI)

FUNCTION:

SUPPLY PYRO GAS PRESSURE TO DRIVE THE KNIFE PLUNGER INTO THE DIAPHRAGM OF THE AVIONICS BAY FIRE EXTINGUISHER TO DISCHARGE THE FIRE SUPPRESSANT CHEMICAL.

FAILURE MODE:

FAILS TO FUNCTION, LOW OUTPUT

CAUSES:

CONTAMINATION OR IMPROPER LOADING OF PYRO MIXTURE; BROKEN BRIDGEWIRE

EFFECT(S) ON:

(A) SUBSYSTEM (B) INTERFACES (C) MISSION (D) CREW/VEHICLE

(A) LOSS OF REMOTE ACTUATION OF FIRE EXTINGUISHER IN ONE AVIONICS BAY.

(B) LOSS OF FIRE SUPPRESSION CAPABILITY IN ONE AVIONICS BAY DURING LAUNCH AND DEORBIT.

(C) NO EFFECT.

(D) LOSS OF CREW/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

SEE FMEA/CIL, NO. 02-5-J05-1 FOR STANDARD INITIATORS FOR DISPOSITION AND RATIONALE A, B, C AND D.

(E) OPERATIONAL USE

POWER DOWN AFFECTED AVIONICS BAY IF FIRE OCCURS.