

CRITICAL ITEMS LIST (CIL)

SYSTEM:	Thermal Protection System	FUNCTIONAL CRIT:	1
SUBSYSTEM:	Components	PHASE(S):	0
REV & DATE:	J, 12-19-97	HAZARD REF:	P.02, T.02
DCN & DATE:			
ANALYSTS:	B. Burkes/R. Lauto		

FAILURE MODE: Lack of SOF: Insulative Capability

FAILURE EFFECT: a) Loss of mission and vehicle/crew due to fire/explosion caused by ruptured feedline and spilled LO2.

TIME TO EFFECT: Seconds

FAILURE CAUSE(S):
 A: Material Deficiency
 B: Process Deficiency

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: This foam provides thermal protection for the LO2 feedline from prelaunch and reentry environments.

FMEA ITEM CODE(S)	PART NO.	PART NAME	QTY	EFFECTIVITY
5.B.1.2	80971028405	Feedline, LO2, TPS Appl	5	LMT-54 thru 67
	80971028425	Feedline, LO2, TPS Appl	5	LMT-68 & Up
	80971028465	Feedline, LO2, Flex, TPS Appl	2	LMT-54 & Up
	80971008442	TPS C/O Inertl, SLA & Foam (Views A & C)	1	LMT-54 & Up
	80971068433	TPS C/O, Re Inj Box - Bldg 420 (View V)	1	LMT-54 & Up

REMARKS: The LO2 feedline SOFI applications are grouped as the failure mode, causes and effects are the same.

CRITICAL ITEMS LIST (CIL)
CONTINUATION SHEET

SYSTEM: Thermal Protection System
SUBSYSTEM: Components
FMEA ITEM CODE(S): S.8.1.2

REV & DATE: J, 12-19-97
DCN & DATE:

RATIONALE FOR RETENTION

STP1503, 1513, 1518, 1532, 1536 and 6014 are applicable to this FMEA Item Code. See Page 1 for Retention Rationale specified by these STP's. The following additional Retention Rationale is also applicable to this FMEA Item Code:

DESIGN:

No additional Rationale for Retention is applicable.

TEST:

The LO2 Feedline SOF1 Applications are certified. Reference HCS's MMC-ET-TMOS-L-T008, T019, T503, T504 and T507. Refer to the HCS(s) for effectivity data applicable to specific part numbers and material type.

INSPECTION:

No additional Rationale for Retention is applicable.

FAILURE HISTORY:

Current data on test failures, unexplained anomalies and other failures experienced during ground processing activity can be found in the PRACA data base.