

CRITICAL ITEMS LIST (CIL)

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

FAILURE MODE: Loss of SOFI Material

FAILURE EFFECT: b) Loss of mission and vehicle/crew due to debris impacting Orbiter in critical areas.

TIME TO EFFECT: Seconds

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

REUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: This SOFI provides insulation for the ET's cabling system to prevent prelaunch ice formation.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
5.B.8.1	80971078412	Cover Assy, Foam Appl	1	LWT-54 & Up
	80971028445	Cable Tray Cover, Foam Appl	2	LWT-54 & Up
	80971028445	Cable Tray Assy, Foam Appl	2	LWT-54 & Up
	80971078442	Cable Tray Assy, Foam Appl	1	LWT-54 & Up
	80971028421	Cover Assy, TPS Appl	1	LWT-54 & Up
	80971028419	Cover Assy, Foam Appl	2	LWT-54 & Up
	80971078477	Cable Tray, LQ2 Umb, TPS Appl	1	LWT-54 & Up
	80971078477	Cable Tray, LQ2 Umb, TPS Appl	1	LWT-54 & Up
	80971028446	Cover Assy, Foam Appl	4	LWT-54 & Up
	80971009404	Cover-LQ2 C/T Fairing, TPS Appl	1	LWT-54 thru 63
	80971028415	Cover Assy, Foam Appl	3	LWT-54 & Up
	80971028450	Fairing Assy, RH Foam Appl	2	LWT-54 & Up
	80971028449	Fairing Assy, Foam Appl	2	LWT-54 & Up
	80971008454	TPS C/O FA +Y, -Y Intfc Hdr	1	LWT-54 & Up
	80971068438	Foam C/O SRS C/T and V/S Fairing	1	LWT-54 & Up

REMARKS: The cable tray related 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): 5.8.8.1

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

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RATIONALE FOR RETENTION

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STP1503, 1513, 1518, 1532, 1536, 3001, 3003 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 Cable Tray related Foam Applications are certified. Reference MCS's MMC-ET-TM08-L-7011, 7013, T503, T504 and T507. Refer to the MCS(x) 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.