

**CRITICAL ITEMS LIST (CIL)**

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

FAILURE MODE: Loss of SCFI Material

FAILURE EFFECT: b) Loss of mission and vehicle/crew due to structural failure of cable trays causing early engine shutdown or fire/explosion.  
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

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: The PAL ramps protect the cable tray segments from high aerodynamic crossflow loads.

<u>PMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
5.B.22.1	80971008433	TPS Closeout LK2 Pal Ramp	1	LWT-54 & Up
	80971068437	SRE PAL Ramp, TPS Appl	1	LWT-54 & Up
	80971008422	TPS Closeout Final Instl	1	LWT-54 & Up
	80971068431	C/T Fairing - LK2 PAL Ramp, Bldg 420	1	LWT-54 & Up

REMARKS: The PAL ramp SCFI 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): 5.8.22.1

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

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RATIONALE FOR RETENTION

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STP1503, 1513, 1518, 1532, 1536 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 PAL Ramp SDFI Applications are certified. Reference HCS's MMC-ET-TX08-L-T017, 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.