

CRITICAL ITEMS LIST (CIL)

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

FAILURE MODE: Loss of SDFI 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

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: The ice/frost ramps insulate the pressline brackets to prevent ice formation during prelaunch.

<u>PMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
5.B.21.1	80971008436	TPS C/O Instl P/L C/T, Final Assy	1	LWT-54 thru 63
	80971008437	TPS C/O Instl P/L C/T, Final Assy	1	LWT-64 & Up
	80971108421	SLA & Foam Closeout Instl	1	LWT-54 & Up

REMARKS: The ice/frost ramp SDFI 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): 5.8.21.1

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

RATIONALE FOR RETENTION

STP1510, 1525, 1532, 3004, 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 Ice Frost Ramp TPS Foam Application is certified. Reference MCS's MMC-ET-TN08-L-T017 and T503. Refer to the MCS(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.