

CRITICAL ITEMS LIST (CIL)

SYSTEM:	Thermal Protection System	FUNCTIONAL CRIT:	1
SUBSYSTEM:	LO2 Nose Cone	PHASE(S):	b
REV & DATE:	J, 12-19-97	HAZARD REF:	T.O2
DCN & DATE:			
ANALYSTS:	D. Burkes/R. Lantz		

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

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: The SOFI on the LO2 Nose Cone is applied in small closeout areas to prevent ice/frost formation.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
5.7.2.1	80971068422	TPS C/D, SLA & Foam, Bldg 420 (View F)	1	LWT-54 & Up
	80971068422	TPS C/D, SLA & Foam, Bldg 420 (View G)	1	LWT-54 thru 57, 81, 85 & Up
	80971068422	TPS C/D, SLA & Foam, Bldg 420 (View AA)	1	LWT-58 thru 80, 82-84

REMARKS: The Nose Cone 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: LO2 Nose Cone
FMEA ITEM CODE(S): 5.7.2.1

REV & DATE: J, 12-19-97
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RATIONALE FOR RETENTION

STP1518, 1532, 5013, 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 Nose Cone TPS Foam Application is certified. Reference MCS MMC-ET-TM08-L-1007, TS03 and TS05. 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.