

CRITICAL ITEMS LIST (CIL)

SYSTEM: Thermal Protection System
 SUBSYSTEM: LO2 Aft Dome
 REV & DATE: J, 12-19-97
 DCM & DATE:
 ANALYSTS: B. Burkes/R. Lauto

FUNCTIONAL CRIT: 1
 PHASE(S): a, b
 HAZARD REF: 1.02

FAILURE MODE: Loss of SOF; Material

FAILURE EFFECT: a) Loss of mission and vehicle/crew. Debris blockage of Intertank venting system causes excessive delta pressure across Forward LH2 Dome resulting in fire/explosion.
 b) Loss of mission and vehicle/crew. Debris blockage of Intertank venting system causes overpressure resulting in structural failure of Intertank.

TIME TO EFFECT: Seconds

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

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: This foam provides insulation for the LO2 Aft Dome.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
5.4.1.1	80972018409	LO2 Aft Dome Foam Application	1	LWT-54 & Up
	80971028472	Manhole Cover Assy, Foam Appl	1	LWT-79 & Up

REMARKS:

CRITICAL ITEMS LIST (CIL)
CONTINUATION SHEET

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SUBSYSTEM: LO2 Aft Dome
FMEA ITEM CODE(S): 5.4.1.1

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

RATIONALE FOR RETENTION

STP1513, 3003, 1536, 3004 and 5009 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 Aft Dome SOF1 Application is certified. Reference HCS's MMC-ET-TMOS-L-T004, 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.