

CRITICAL ITEMS LIST (CIL)

SYSTEM:	ASI	FUNCTIONAL CRIT:	1
SUBSYSTEM:	Intertank	PHASE(S):	b
REV & DATE:	J, 12-19-97	HAZARD REF:	S.11
DCN & DATE:			
ANALYSTS:	H. Keefe/E. Howell		

FAILURE MODE: Structural Failure

FAILURE EFFECT: b) Loss of mission and vehicle/crew due to L02 tank structural failure or debris source to orbiter.

TIME TO EFFECT: Immediate

FAILURE CAUSE(S):  
 A: Improper Manufacture  
 B: Failure of Attaching Hardware

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: Provides environmental protection to lines and cables from L02 cable tray into the intertank.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
4.2.6.1	80911141205-019	Fairing Assy Cable Tray, Aft	1	LVT-54 & Up

REMARKS:

CRITICAL ITEMS LIST (CIL)  
CONTINUATION SHEET

SYSTEM: ASI  
SUBSYSTEM: Intertank  
FMEA ITEM CODE(S): 4.2.6.1

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

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DESIGN:

- A, B: The aft cable tray fairing is constructed of aluminum. Materials selected for this part number are in accordance with MMC-ET-SE16 which assures repetitive conformance of composition and properties. The aft cable tray fairing and attachment hardware are designed to the required ultimate safety factor of 1.4 (ET Stress Report 826-2188).
- B: Attaching hardware is selected from the Approved Standard Parts List (ASPL 826-3500), installed per STP2014 and torqued using values specified on Engineering drawings. Tensile installation loads are sufficient to provide screening for major flaws in individual fasteners.

TEST:

The Fairing Assy Cable Tray, Aft is certified. Reference HCS MMC-ET-TM08-L-S008 (LWT-54 thru 88) and HCS MMC-ET-TM08-L-S504 (LWT- 89 & Up).

Vendor

- B: Attaching hardware is procured and tested to standard drawings 26L17, 26L4, 26L3 and 33L3.

INSPECTION:

Vendor Inspection - Lockheed Martin Surveillance:

- A, B: Verify materials selection and verification controls (MMC-ET-SE16, drawing 80911141205 and standard drawings 26L17, 26L4, 26L3, 33L3).
- A: Inspect dimensional conformance (drawing 80911141205).

MAF Quality Inspection:

- B: Inspect that attaching hardware is free from damage (drawing 80911141200 and STP2014).
- A, B: Verify installation and witness torque (drawing 80911141200).

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.