CRITICAL ITEMS LIST (CIL)

SYSTEM:	Electrical	FUNCTIONAL CRIT:	1
SUBSYSTEM:	LH2 Forward Feedthru Receptacle	PHASE(S):	b
REV & DATE:	J, 12-19-97	HAZARD REF:	E.01, S.06
DCN & DATE:			
ANALYSTS:	J. Bowski/A. Oser		

FAILURE MODE: Leakage

FAILURE EFFECT: b) Loss of mission and vehicle/crew due to fire/explosion.

TIME TO EFFECT: Seconds

FAILURE CAUSE(S): Damaged Glass Seal

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: The glass seal located in the receptacle provides a hermetic seal and carries the electrical pins.

FMEA ITEM CODE(S)	PART NO.	PART NAME	QTY	EFFECTIVITY
3.11.5.4	81L2-2 (302A01 J1, J2)	Feedthru Receptacle	1	LWT-54 & Up

REMARKS:

CRITICAL ITEMS LIST (CIL)
CONTINUATION SHEET

SYSTEM:	Electrical	REV & DATE:	J, 12-19-97
SUBSYSTEM:	LH2 Forward Feedthru Receptacle	DCN & DATE:	
FMEA ITEM CODE(S):	3.11.5.4		

RATIONALE FOR RETENTION

DESIGN:

The cryogenic feedthru receptacle is a jam nut mount. It is designed with a shell made from CRES 304 or 304L per QQ-S-763. The jam nut is CRES 321 or 304L per QQ-S-763. The shell and nut are cadmium plated per QQ-P-416. The sealing surface finish is a 32. The insert is virgin teflon per MIL-P-19468. The hermetic sealing is accomplished by the use of a fused glass insert of a vitreous material. The pin contacts are constructed of iron-nickel alloy per MIL-I-23011 and are gold plated per MIL-G-45204. This connector is designed to meet the dielectric requirements of 1000V RMS at 60 Hz and 5000 megohms insulation resistance.

The fusing of the glass insert provides for setting of the contacts in the required position. The location and contact set up is per Lockheed Martin Standard Drawing 81L2.

TEST:

The Feedthru Receptacle is qualified. Reference CDQ MHC-ET-TM06-116.

Vendor:

Perform Leak Test of Receptacle (Standard Drawing 81L2).

INSPECTION:

Lockheed Martin Procurement Quality Representative:

Witness Leak Test (Standard Drawing 81L2).

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.