

NON-CIL 1R ITEMS

SYSTEM: Electrical

REV & DATE: J, 12-19-97

SUBSYSTEM: LH2 Level System

DCN & DATE:

Per NSTS 22206, certain failure modes of the following items in subsystem 3.3 (LH2 Level System) meet the criteria to be designated "Non-CIL 1R". Rationale for Retention is not required.

FMEA Item Codes: 3.3.2.2, 3.3.3.2, 3.3.4.2, 3.3.5.2, 3.3.6.2, 3.3.8.3, 3.3.10.3 and 3.3.11.3.

CRITICAL ITEMS LIST (CIL)

SYSTEM: Electrical
 SUBSYSTEM: LH2 Level System
 REV & DATE: J, 12-19-97
 DCN & DATE:
 ANALYSTS: R. Lunden/A. Oser

FUNCTIONAL CRIT: 1R
 PHASE(S): a
 HAZARD REF: E.01

FAILURE MODE: Fails with False Dry Signal

FAILURE EFFECT: a) Loss of mission and vehicle/crew due to fire/explosion caused by LH2 flowing out of vent valve.

TIME TO EFFECT: Minutes

FAILURE CAUSE(S): Increase in Circuit Resistance

REDUNDANCY SCREENS: Screen A: PASS
 Screen B: N/A - Item nonfunctional in flight.
 Screen C: PASS

FUNCTIONAL DESCRIPTION: Harnesses route the excitation current and return functions between the ET/Orbiter interface and each level sensor.

<u>FMEA ITEM CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
3.3.8.3	80931003704-469 (302w01 P1/Splices)	Harnesses	1	LWT-54 & Up
3.3.10.3	80931003704-420 (305w01 P1/P3/P5/ J23/J33)	Harnesses	1	LWT-54 thru 88
	-520		1	LWT-89 & Up
3.3.11.3	80933003704-379 (314w01 J1/J2/P3)	Harnesses	1	LWT-54 thru 88
	-549		1	LWT-89 & Up

REMARKS: The Harnesses are grouped as the failure mode, cause and effects are the same. Items meet criteria for Non-CIL 1R. Rationale for Retention is not required.