

REV. \_\_\_\_\_ A \_\_\_\_\_

DATE \_\_\_\_\_ March 25, 1988  
\_\_\_\_\_ (Revised May 11, 1988) \_\_\_\_\_

FMEA #:60-570-0790-03-FH1

END ITEM EFFECTIVITY:  
X X X  
OV102 OV103 OV104

MODEL NO: S70-0790-03

SUBSYSTEM: ECLSS

PART NUMBER:	PART NAME:	REFERENCE DESIGNATION:
MS27363K036W	Hose Assembly	FH1

CRITICALITY NUMBER: 2

FUNCTION: Transport of freon within servicing assembly.

CRITICAL FAILURE MODE: Leakage.

CAUSE: Material degradation.

FAILURE EFFECT ON:

- (A) END ITEM: Loss of fluid would preclude continued servicing to orbiter.
- (B) INTERFACING SUBSYSTEM(S): Freon loop GSE would be rendered inoperative.
- (C) ORBITER: Discharge of freon onto orbiter/work platforms. Possible exposure of TPS to freon discharge.
- (D) PERSONNEL: Exposure of personnel to freon 21.

HAZARDS: Possible exposure of personnel to freon discharge.  
Possible damage to TPS from freon discharge.

DATE: March 25, 1988  
REV : May 31, 1988

### ACCEPTANCE RATIONALE

**DESIGN:** Review of assembly documents GW70-582437, GW70-582438, G070-582439 have provided design data points to be complied with for acceptance rationale.

Design data points:

Pressure check to 760 psig helium for 3 min with no visible deformation. Leak check with He of each assembled joint shall show leakage less than 5 psig loss at 380 psig in five minutes. Freon 21 compatibility at full flow rate and operational temperature window. Envelope of 0 to 450 psig.

**TEST:**

PRE-OPERATIONAL: Per OMI V2001, V3537

Pre use inspection of all bagged and cleaned components and non metallics (flexhoses). Pressurization to operating condition with no visible signs of leakage or deformation (450 psig).

**INSPECTION:**

PRE-INSTALLATION: Per OMI V6F22

Examination of product: No loose or missing components, identification of tags, decals, plates and safety critical markings. Hardlines/flexhoses appear to be suitably clamped or wrapped so to prevent damage due to vibration or chafing. Current proof pressure identification on flexhoses. No age deterioration, loss of resiliency or cracks in non-metallic.

AGE LIFE: Per OMI S6013, the assembly is inspected annually (V6F22) for compliance to the material and assembly specifications.

**OPERATION:**

Continual monitoring of pressure gages on the freon servicing unit and supply system reduces potential of extended discharge of freon.

**DETECTION:**

Visual detection of leaking gas.

**CORRECTION:**

Isolation and replacement.

**FAILURE HISTORY:**

Review of PRACA Data Base has provided no failure history on assembly MS27363K0360.