

DESIGNATION (NAME)
 CONTROL NUMBER (UNIQUE)
 NAME (PART NUMBER) (FORM 1000.7 (U))

QAC MILITARY FORM 1000
 SYSTEM
 SUBSYSTEM

FORM 1000
 7-73

B-2.3

ITEM		MFG. OR MIL. OR DEV. OR DESIGNATION	QAC	FAILURE MODE AND CAUSE	EFFECTS OF FAILURE	ACCEPTANCE AND TESTING
REQ	REP					
2.7.2a		UNCL 3140 SP2001429 01	2/30	<p><u>Failure Mode:</u> leakage between valve seat and flapper.</p> <p><u>Cause:</u> Foreign matter in parts burrs, flash, or chips on parts.</p>	<p>severe leakage from bag into cull and possible leakage into PMU. leakage into orifier when dosing DUCD.</p>	<p>1) Design The valve flapper used with the valve seat is a one way valve allowing flow (urine) into the bag and preventing flow back out. The valve seat is molded from Cryolac 7 to provide the necessary seating capability.</p> <p>2) Test</p> <p>a) Acceptance The valve seat is leak tested in the DUCD during PMA (at 7 psig) and at PIA (at 2 psig).</p> <p>b) Certification The DUCD was certified by analysis based on review of drawing MICH-10007-01.</p> <p>c) Turnaround Used DUCD's are disposed of. Unused DUCD's are leak tested at PIA at 2 psig, during which a defective valve would be discovered.</p> <p>3) Inspection</p> <p>a) Manufacturing The valve stem is a vendor item and undergoes 100% visual inspection upon receipt.</p> <p>b) Turnaround Unused DUCD's undergo visual inspection at PIA.</p> <p>4) Failure History None</p> <p>5) Operational Use</p> <p>a) Effect of Failure Termination of EM (abort) may be necessary.</p> <p>b) Crew Action Determine extent of problem; continue EM or return to orbiter.</p> <p>c) Crew Training Orientation includes discussion of possible failure, effect on PMS, position used to abort.</p> <p>d) Mission Constraints None</p> <p>e) In-flight Checkout None</p>