1. **SCOPE:**

   1.1 Title: Bolted Bonnet Valve; repair

2. **REFERENCES:**

   2.1 S9086-CJ-STM-010/CH-075, Fasteners

   2.2 T9074-AS-GIB-010/271, Requirements for Nondestructive Testing Methods

   2.3 MIL-STD-2035, Nondestructive Testing Acceptance Criteria

   2.4 S9253-AD-MMM-010, Maintenance Manual for Valves, Traps, and Orifices (Non-Nuclear), User's Guide and General Information

3. **REQUIREMENTS:**

   3.1 Matchmark *each* valve part.

   (V) "INSPECT PARTS FOR DEFECTS"

   3.2 Disassemble, clean free of foreign matter (including paint), and inspect *each* part for defects.

       3.2.1 The removal of body-bound studs only to determine the condition of threads is not required.

       3.2.1.1 Exposed portion of body-bound studs shall be inspected.

   (I) or (V) "TORQUE TEST" (See 4.3)

       3.2.2 Torque test each body-bound stud in accordance with Section 075-8.6.3.2(d) of 2.1.

   (I) "LIQUID PENETRANT INSPECT"

       3.2.3 Accomplish liquid penetrant inspection of *each* seat (including back seat), disc, or gate in accordance with 2.2.
3.2.3.1 Acceptance criteria shall be in accordance with Paragraph 7 of 2.3, except hairline cracks in hard-faced areas of seats and discs or gate are acceptable provided the valve does not show evidence of leakage.

3.3 Repair each valve as follows:

3.3.1 Straighten stem to within 0.002-inch total indicator reading. Polish stem to a 32 Root-Mean-Square finish in way of packing surface and remove raised edges and foreign matter.

3.3.2 Chase and tap each exposed threaded area.

3.3.3 Clean and spot-in bonnet to body gasket each mating surface.

3.3.4 Machine, grind, or lap and spot-in gate or discs to each seat (including back seat) to obtain a 360-degree continuous contact.

(V) "INSPECT CONTACT"

3.3.4.1 Inspect contact using blueing method.

3.3.4.2 Transfer line for gate valve shall not exceed 3/16 inch in width and shall appear within the lower 75 percent of the gate seating surface.

3.3.4.3 Transfer line for globe valve shall not exceed 1/16 inch in width.

(I)(G) "VERIFY LEVEL I PARTS"

3.4 Assemble valve, installing new gaskets in accordance with the manufacturer's specifications. Install new fasteners.

3.4.1 Pack feedwater, condensate, and steam valves with valve stem packing conforming to MIL-P-24503/24583 combination in accordance with Chapter 6 of 2.4.

3.4.2 Pack valves of systems other than feedwater, condensate, or steam with valve stem packing conforming to MIL-P-24396, Type B.

4. NOTES:

4.1 Operational test of valve will be specified in Work Item.

4.2 Repair of valve operating gear will be specified in Work Item.

4.3 The paragraph referencing this note is considered an (I) if the valve is Level I. If the valve is not Level I, the paragraph is considered a (V).