

Coded Note Number: **IC215**

Revision: **C009**

Date: **April 9, 2013**

Title: **Mod Reqts for CVN78CL STL Fittings**

All steel fittings/flanges that reference this note shall meet the following requirements:

- A. A 100 percent Shear Wave Ultrasonic Test (UT) in accordance with T9074-AS-GIB-010/271, with Change Notice 1, shall be performed for all fittings/flanges 6 inch NPS and larger. MIL-F-24339 Rev. C, Amend. 1, with IC. # 2, section 4.5.4.3.2.2, shall be used to interpret UT inspection results. UT of the formed fitting is not required provided that shear wave UT in two opposite directions was performed on the starting material (pipe) in accordance with MIL-P-24691 requirements.
- B. The use of welded starting material and weld repair is strictly prohibited.
- C. The use of bar stock starting material is restricted to those applications where axially oriented stringers in the starting material would not result in through wall flaws in the fluid boundary.
- D. 0.30 percent maximum carbon content for all starting material options.
- E. A Hydrostatic Test is invoked and shall be conducted for each fitting. Hydrostatic test pressures shall be in accordance with that required by the matching pipe specification, ASTM A530-99, except that the maximum hydrostatic pressure shall not exceed 110 percent of the calculated hydrostatic test pressure. $S = 21,000$ psi for hydrostatic pressure calculations. Test pressure shall be held for a minimum of 2 minutes without weeping, leaking, bulging or permanently deforming of the fitting. (**Flanges and Integrally Reinforced Branch Fittings** are not required to be hydrostatically tested.)
- F. A Tension Test shall be conducted for each lot of fittings/flanges.
- G. Fittings/Flanges shall be manufactured from forgings, where possible, or from seamless tubing. Pipe Caps and Spectacle Flanges may be made from plate if they are formed seamless.
- H. Magnetic Particle (MT) shall be performed on all finished fittings/flanges 6 inch NPS and larger. Inspection shall be accomplished with T9074 AS-GIB-010/271, with Change Notice 1. MIL-F-24339 Rev. C, Amend. 1, with IC. # 2, section 4.5.4.2.2 with guidance from Table V, shall be used to interpret MT inspection results. PT shall be used in lieu of MT inspection only for those areas for which configuration or accessibility make MT impractical. Inspection shall be accomplished with T9074-AS-GIB-010/271, with Change Notice 1. MIL-F-24339 Rev. C,

Amend. 1, with IC. # 2, section 4.5.4.1.2 with guidance from Table V, shall be used to interpret PT inspection results.