Proposal

8-700.5.10 Penetration Test

8-700.5.10.1 Procedure. A vessel pressurized to design pressure with the in-service gas or with nitrogen shall be impacted by an armor piercing bullet. The bullet shall impact the vessel sidewall at an angle of 90 deg. This test may be conducted on a sub-scale vessel that is the same diameter and wall construction, but shorter in length. The minimum length to diameter ratio of 2:1 shall be used for the sub-scale vessel. The penetration test shall be conducted with the vessel at a maximum distance of 50yds (46m) from the gun muzzle.

8-700.5.10.2 Armor Piercing Bullet. An armor piercing (AP) bullet is a jacketed hard core (non deformable) projectile, and shall be nominal 30 caliber (7.62mm). The cartridge used for this test shall be a 308 Winchester AP or 7.62x51mm Nato AP round.

8-700.5.10.3 Acceptance Criteria. Bullet penetration of the sidewall is expected, but is not required. The vessel is unacceptable if there is fragmentation of the sidewall.