

C13.6.8.1 ASME Pressure Piping Systems

In Table 13-6-1, the increased R_p values listed for ASME B31-compliant piping systems are intended to reflect the more rigorous design, construction, and quality control requirements as well as the intensified stresses associated with ASME B31 designs.

Materials meeting ASME toughness requirements may be considered to be high-deformability materials.

C13.6.8.2 Fire Protection Sprinkler Piping Systems

The lateral design procedures of NFPA (2007) have been revised for consistency with the ASCE/SEI 7 design approach while retaining traditional sprinkler system design concepts. Using conservative upper-bound values of the various design parameters, a

single lateral force coefficient, C_p , was developed. It is a function of the mapped short period response parameter S_s . Stresses in the pipe and connections are controlled by limiting the maximum reaction at bracing points, as a function of pipe diameter.

Other components of fire protection systems, e.g., pumps and control panels, are subject to the general requirements of ASCE/SEI 7.

C13.6.8.3 Exceptions

The conditions under which the force and displacement requirements of Section 13.3 may be waived are based on observed performance in past earthquakes. The 12-in. (305-mm) limit on the hanger or trapeze drop must be met by all the hangers or trapezes supporting the piping system.