



INTERPRETATION: IIAR SC 2021-5, IIAR 2-2021 – Piping Design Pressure

FINALIZED: October 5, 2021

SUBJECT: Design pressure requirements for piping connected to other components

BACKGROUND: IIAR 2-2014 Addendum A, Section 5.5.1.3 stated that:  
“Equipment and Piping Connected to a Pressure Vessel. Equipment and piping connected to pressure vessels and subject to the same pressure as the pressure vessel shall have a design pressure that is equal to or greater than the set pressure of the pressure relief protection for the pressure vessel.”

This left a gap in the ability of users of the standard to comply by separately protecting equipment and piping of a lower design pressure. During the course of revision to the 2021 standard, this provision was split into two separate provisions governing equipment and piping, and compliance paths provided for each.

The language developed for 5.5.1.3 Piping Connected to a Pressure Vessel allowed piping to be separately protected but removed the allowance for a piping design pressure equal to or greater than that of the set pressure of the relief device protecting the connected pressure vessel.

QUESTION 1:

Is it the IIAR’s position that piping connected to a pressure vessel or other component have a design pressure that is equal to or greater than the nameplate design pressure or the pressure vessel or other component?

ANSWER 1:

No. It is the IIAR’s intent to be consistent with the requirements listed in ASME B31.5, which state in 501.2.5(b) that:

“When components of a system are protected by a pressure relief device, the design pressure of the piping need not exceed the setting of the pressure relief device.”



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It is not the intent of the revised standard to enforce a stricter requirement on piping design pressure with regard to connected pressure vessels and other components than is promulgated in ASME B31.5.

COMMITTEE

ACTION:

Upon the next revision of IIR 2, revise the language in 5.5.1.3 to clarify that piping having a design pressure equal to or greater than the set pressure of the relief device protecting the connected pressure vessel or components is in compliance with the standard.