

Agenda Item: 620-1044

Title: API 620 Annex Q and R – Allowable Stresses for Outer Tank Materials

Date: May 5, 2026

Contact: David Redman
Kiewit Engineering Group Inc.
918-409-5188
David.Redman@kiewit.com

Purpose: Provide clarity on allowable stresses for outer tank materials in Annex Q and R

Source: Review

Revision: 0

Impact: None

Rationale: The purpose of this agenda item is to help provide clarity about the allowable stresses permitted for the outer tank materials on warm vapor product containers and purge gas containers.

In Annex Q.3.3, allowable design stresses are clearly prescribed for the primary liquid containers, secondary liquid containers, and membrane containers. However, the outer tank as warm vapor product containers and purge gas containers are not listed or specifically described for what the allowable design stresses are for those materials.

However, it is stated in Q.3.10.1 that design of these particular outer containers are to follow Section 5. To reduce possible confusion, adding context in Q.3.3 section about allowable design stresses would provide stronger clarity when also reading Q.3.10.1.

The same type of observation is also in Annex R.3.3. Although, R.3.10.1 does state for design of outer containers (warm vapor and purge gas) to follow Section 5, adding clarity in R.3.3 would provide stronger clarity as well.

It is proposed to add language to provide that clarity and remove any chance of uncertainty.

Proposal (new paragraph to add)

Q.3.3.11 Allowable design stresses for tensile and compressive loading, including for wind and seismic, on warm vapor containers and purge gas containers shall follow Section 5.

(new paragraph to add)

R.3.3.11 Allowable design stresses for tensile and compressive loading, including for wind and seismic, on warm vapor containers and purge gas containers shall follow Section 5.

For Committee Review Only