Add the following Definition of “Tension Tie Member” to Article D2-II-1000 TERMS AND DEFINITIONS:

*Tension tie member:* Linear member with reinforcement, having an axial tensile force sufficient to create tension over the entire cross section and having limited concrete cover on all sides, such as arch ties. Typical reinforced concrete containment walls, domes and slabs/basemats should not be classified as tension tie members.
Shannon Banchero  
Manager, Technical Documents  
American Concrete Institute  
38800 Country Club Drive  
Farmington Hills, MI 48331

February 13, 2020  
Dear Shannon:

RE: ACI TAC Review of ASME BPVC III-2/ACI 359 Record 17-2943

Please see below the Joint Committee responses to the comments received on the ACI TAC ballot regarding ASME Record 17-2943, which closed on November 22, 2019.

**Record 17-2943:**  
**Comment:**

a) CC-3532.1.5 Splices in Tension Tie Members.  
*Splices shall be made with a welded butt splice in accordance with CC-4334 or a positive mechanical connection in accordance with CC-4334 and be staggered at least 1.3d.*  
I observed that section CC-4334 (Arc Welded Joints) addresses welded splices (by further reference to Mandatory Appendix D2-VIII). It does not, however, appear to explicitly address "positive mechanical connection".

b) ACI 318-19 Section R25.5.7.4 provides characteristics of a tension tie member that are compatible with the proposed definition, but can be considered for completeness and consistency.

c) CC-3532.1.5 Change the word “limited” to “minimum required” in the definition of Tension tie member.

**Response:**

a) Thank you for your comment. There is a typo in “a positive mechanical connection in accordance with CC-4334” in CC-3532.1.5 of the old editions of the Section III, Division 2 Code. “CC-4334” should be “CC-4333” and this typo has been corrected in the 2019 edition of the Code.2 Code.

b) Thank you for your comment. The fundamental characteristics of tension tie members provided in ACI 318-19, Commentary R25.5.7.4 were considered to define the tension tie member. Other parts in Commentary R25.5.7.4relevant to the ASME B&PVC Section III, Division 2 Code are being incorporated in the Section III, Division 2 commentary document.

c) Thank you for your comment. The word “limited” has been used to describe the characteristics of a tension tie member in ACI 318-19 Commentary R25.5.7.4. Our approach is to maintain consistency with the words in ACI 318.

**Negative:**

a) Strike “having” change to “subject to”. The member does not always have an axial tension force. While I understand this has been in the 318 commentary for some time, I do not believe this is good language. Furthermore, I believe CC-3532.1 should add the second paragraph of the 318 commentary for context. Consider adding, “In determining if a member should be classified as a tension tie, consideration should be given to the importance, function, proportions, and stress conditions of the member related to the above characteristics. For example, a usual large circular tank, with many bars and with splices well staggered and widely spaced should not be classified as a tension tie member, and Class B splices may be used.”
Response:

a) Thank you for your comment and suggestion. As you noted, "having" is used in the 318 commentary. The word is also used in the definition of tension tie member in CALTRANS' Bridge Design Specification, Section 8 – Reinforced Concrete. This word may not be the best choice; however, we believe it is appropriate and acceptable. The Joint Committee has established a commentary document for ASME BPVC Section III, Division 2 Code (ACI 359). In an effort to be consistent with ACI 318, the committee has determined that it is more appropriate to include language similar to that in your proposal in our Commentary document, rather than in Paragraph CC-3532.1 of the Code. The Joint Committee recently approved of the ASME BPVC III-2 CC-3000 section of the commentary document, which addresses the definition of a tension tie member. Considering that this issue has been appropriately addressed, please consider withdrawing your negative.

Sincerely,

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