

Title: Clarification of Owner/Operator Responsibility for the Evaluation of the Fixed Roof for Cable-Supported Internal Floating Roofs

Revision 0

Prepared by:

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Purpose:

The existing language within the current version of API Standard 653 (3rd Ed., 2nd Add.) does not address the issue of retrofitting a cable-suspended internal floating roof onto the fixed roof of an existing tank. The common practice within the industry is to refer to the API Standard 650 for these cases; however the 11th Edition of API-650 introduces the potential for conflict in this situation. This issue could effect the continued application of cable suspended internal floating roofs. The intent of this agenda item is to clarify that the Owner/Operator shall be responsible for the evaluation of the fixed roof and support structure of an existing tank for the purpose of retro-fitting an aluminum cable suspended system for an internal floating roof.

Source:

Requested during the Subgroup Design session of the Spring meeting.

Impact:

This agenda item will serve to prevent delays with cable-suspended internal floating roof installation schedules (as well as subsequent profit losses) due strictly to disagreement between the involved parties regarding who will be responsible for verifying the adequacy of the existing fixed roof (to safely support the additional loading).

Rationale:

Currently it is not clear that these fixed roof verification analyses are being performed on a regular basis within the industry by either party (owners or manufacturers). If a manufacturer requires this verification prior to installing their product (thereby creating delays and additional cost), then they may stand to lose a competitive advantage to another manufacturer who does not. Current language in the Standard is ambiguous regarding this issue. Eliminating the ambiguity will serve to "level the playing field" for floating roof manufacturers while also encouraging the owners to verify the adequacy of the tank fixed roof for the additional loading.

Existing Text

9.12.2 Internal Floating Roofs

Repairs to internal floating roofs shall be made in accordance with the original construction drawings. If the original construction drawings are not available, the roof repairs shall be in compliance with the requirements of API Std 650, Appendix H.

Proposed Changes

9.12.2 Internal Floating Roofs

9.12.2.1 Repairs to internal floating roofs shall be made in accordance with the original construction drawings. If the original construction drawings are not available, the roof repairs shall be in compliance with the requirements of API Std 650, Appendix H.

9.12.2.2 When a cable supported internal floating roof is retrofit to an existing tank, the Owner/Operator shall be responsible for evaluating the capability of the fixed roof to safely support the additional loading. The load combinations specified by API-650 Appendix R shall be used for this evaluation.