Safety Committee Meeting Appendix A cable / line testing requirements

April 30, 2024 Rick Trask NSF Wire Pool

Appendix A Testing Requirement

• 11th Edition of the RVSS revised 20 June 2023

- Section A.5.2 Method of Determining TBL Steel Wires and Cables
 - For steel cables and wire rope the Operator shall send a seven-meter test sample with at least one end terminated with a fitting normally used in the field. If the field terminations are found to not develop full breaking strength a test may be conducted using standard poured epoxy resin terminations.

• 9th Edition of the RVSS revision 1 dated 07/07/2011

- Section A.3.8
 - For steel cables and wire rope the Operator shall send a five-meter test sample terminated on both ends with fittings normally used in the field. If the field terminations are found to not develop full breaking strength a test may be conducted using standard poured epoxy resin terminations.

Vessel Applied Terminations

57% of vessel applied terminations broke below the NBL

Results varied by type of termination:

- Cable Grip Termination, 9 tests, 78% broke below the NBL
- Cerrobend poured socket, 10 tests, 40% broke below the NBL
- Nicopress with thimble, 22 tests, 68% broke below the NBL
- Electroline termination, 3 tests, 0% broke below the NBL

Of those that broke below the NBL:

The average breaking strength of samples with vessel applied terminations were 9% less than the NBL.

All repeat tests with Wire Pool applied terminations broke above the manufacturer's NBL.

The terminated end is not the most heavily loaded section, so why test it?



Is it appropriate to continue testing samples with vessel applied terminations?

Pros

- Info re: Termination efficiency
 - What % of BS can the term. withstand?
- Info re: Terminating procedures
 - Are some approaches better than others?
- Info re: Terminating equipment
- Info re: The system as a whole, both the strength of the termination and the tension member.

Cons

- Depletes supply of fittings....\$
- Requires additional time
- The termination end will not see loads as high as those at the over-boarding sheave.
- Fittings may sustain damage.

This is a Safety Committee decision.

• Testing samples with vessel applied terminations is currently a requirement of Appendix A and has been for 13 years.

Should there be a change to this requirement?