

# EXPECTED IMPLEMENTATION JULY 2019

## 471 FIBER REINFORCED POLYMER FENDER SYSTEMS (REV 11-1-18) (FA 1-16-19) (7-19)

SUBARTICLE 471-5.1 is deleted and the following substituted:

### 471-5 Design Criteria.

**471-5.1 Wales:** Wales must meet the following minimum design criteria:

1. Be structurally continuous across a minimum of two spans.
2. Recess all attachment hardware.
3. Provide sufficient creep resistance to prevent loosening of attachments

over time.

4. Provide adequate stiffness to distribute vessel impact loading so as to achieve the maximum efficiency of the system.

5. For hollow wale sections, provide a minimum bolt pull-through and crushing resistance greater than or equal to the maximum connection reaction force. Pull-through and crushing resistance is defined at the point of first yield and/or the load at which an audible crack occurs.

6. Hollow wale sections must be capable of resisting crushing loads perpendicular to the axis of the member as required for the impact force applied to fender in the analysis used to determine the associated energy absorption capacity of the system. This impact force may be equally distributed between two lines of wales and over a longitudinal distance of five feet.

7. Provide black wales unless otherwise shown in the Plans.

8. Wales must meet the RTSS minimum requirements in Section 973,

Table 5-1.

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