American Railway Engineering and Maintenance of Way Association
Proposed Letter Ballot 07-21-04

1. **Committee and Subcommittee:** Committee 7, Timber Structures; Subcommittee 2, Material Specification and Design, Rating and Loading Requirements for Timber Structures.

2. **Letter Ballot Number:** 07-21-04

3. **Assignment:** C2-1-16: Review and update Parts 1-3 and associated commentary of Chapter 7.

4. **Ballot Item:** Revise Commentary Paragraph 6.3.1.3a. (see attached)

5. **Rationale:** Removes disputed information. There are varying opinions on the thresholds for overloading of a timber structure and when failure would occur.

6. **Vote:**   Approve_____   Disapprove_____   Abstain_____

    *Note: If you have a conflict of interest on the topic being considered, you must mark the ballot "Abstain."

7. **Comments:** Comments must be provided when voting to disapprove or abstain. Use additional space on back or attach sheet as necessary.

    _____

    _____

    _____

8. **Voting Deadline:** Please vote ONLINE. If you are unable to vote online, please e-mail your ballot to Stephanie Swanson at stephanie.swanson@bnsf.com. The deadline to vote is **December 23, 2021.**

9. **Signature:** I have read the regulations Governing AREMA Technical Committees and have complied with all its requirements.

    Signed: _____   Name (Please Print): _____

    Date: _____   E-mail (if changed): _____

Proposed changes as follows:

Deleted text noted by ~~strikethrough~~.
Added text shown by <u>underline</u>.

Revise Commentary Article 6.3.1.3, Paragraph a. as follows:

6.3.1.3 Carrying Capacity (2013)

a. There are many factors affecting the strength of lumber for which no satisfactory, commercially applicable methods of evaluating the effects have been found. These factors produce a variability among pieces which otherwise seem to be alike. Since the allowable stresses of Table 7-2-9 are based on the strength of the weakest pieces that may occur in the grade and assume that each piece must carry its load, it follows that if a load is carried by several members, not independent of each other, the designer could reasonably allow somewhat higher stresses. Conversely, if the failure of a single member would cause unusually great damage, the allowable stress on that member should be reduced. ~~An overload of 50 percent will cause failure in only in rare cases, but if the load is doubled, failures will be frequent.~~