

## ADVISORY COMMITTEE COMMENT FORM FOR PROPOSED CODE CHANGES

(This form must be submitted electronically)

SAC-5, 1305.1607 Subp. 2 & 3 Live Loads

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### Proposed Code Change - Language

#### **1305.1607, LIVE LOADS**

Subp. 2. **Section ~~1607.12.2~~ 1607.13.2** IBC Section ~~1607.12.2~~ 1607.13.2 is amended to read as follows:

**~~1607.12.2~~ 1607.13.2 Vertical Impact force.** The maximum wheel loads of the crane shall be increased by the percentages shown below to determine the induced vertical impact or vibration force. Impact load shall be applied to one hoist system at a time for multiple hoist or bridge systems.

Monorails, underhung bridge cranes and pendant operated top running bridge cranes:

15 percent minimum for hoist lift speeds of less than 30 feet per minute.

Percentage equivalent to 0.5 times the hoist lift speed, for lift speeds of 30 to 100 feet per minute.

50 percent maximum for hoist lift speeds greater than 100 feet per minute.

50 percent for magnetic pickup or vacuum lift type systems.

No impact load is required for hand chain (non-powered) hoists.

Cab operated or remotely operated top running bridge cranes:

25 percent minimum.

Subp. 3. **Section ~~1607.12.3~~ 1607.13.3** IBC Section ~~1607.12.3~~ 1607.13.3 is amended to read as follows:

**~~1607.12.3~~ 1607.13.3 Lateral force.**

Top running powered bridge cranes. The lateral force on top running crane runway beams with powered trolleys shall be calculated as 20 percent of the sum of the rated capacity of the

crane and the weight of the hoist and trolley. The lateral force shall be assumed to act horizontally at the traction surface of a runway beam, in either direction perpendicular to the beam, and shall be distributed according to the lateral stiffness of the runway beam and supporting structure. The runway beams shall be designed for the lateral and torsional loads, as well as for the maximum lateral deflection limit of  $\text{Span}/800$ .

Monorails and underhung bridge cranes.

The bridge girder, underhung bridge crane runway beam and monorails shall be designed with sufficient strength and rigidity to prevent detrimental lateral deflection.

The lateral deflection should not exceed  $\text{span}/800$  based on 5 percent of maximum wheel load(s) without vertical impact factor.

**Proposed Code Change – Need and Reason**

There was a re-numbering change of this section from the 2006 IBC to the 2012 IBC. This proposal is a re-numbering change only.

**Proposed Code Change – Cost/Benefit Analysis**

No cost implications.

**Other Factors to Consider Related to Proposed Code Change**

1. Is this proposed code change meant to:

change language contained in a published code book? If so, list section(s). No

X change language contained in an existing amendment in Minnesota Rule? Yes.  
If so, list Rule part(s). MN 1305.1607 Subp. 2 & 3

delete language contained in a published code book? If so, list section(s). No

delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). No

neither; this language will be new language, not found in the code book or in Minnesota Rule. No

2. Is this proposed code change required by a Minnesota Statute or new legislation? If so, please provide the citation to the Statute or legislation. No

3. Will this proposed code change impact other sections of a published code book or of an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

4. Will this proposed code change impact other parts of the Minnesota State Building Code? If so, please list the affected parts of the Minnesota State Building Code. No

5. Who are the parties affected or segments of industry affected by this proposed code change? None

6. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result. No

7. Are you aware of any federal requirement or regulation related to this proposed code change? If so, please list the regulation or requirement. No