Interpretation: 3-1

Subject: ASME B30.3-1990, Hammerhead Tower Cranes

Date Issued: December 16, 1991

Question (1): Does wood planking, when used to construct the floor of a tower crane operator’s cab, comply with the requirements of para. 3-1.17.1(a)?

Reply (1): Both the 1984 and 1990 editions of B30.3 have identical wording for the subject paragraph. The pertinent part of that wording is, "They shall be constructed of material which will not support combustion." Wood will support combustion and does not comply with para. 3-1.17.1(a).

The 1975 edition of B30.3, in para. 3-1.2.6(a)(2), requires that, "All cabs and remote control stations shall be constructed of fire retardant materials." Wood can be pressure treated or coated to make it fire retardant; refer to NFPA 703.

Section IV, New and Existing Installations, in the introduction to B30.3, states that, "It is not the intent of this volume to require retrofitting of existing equipment. However, when an item is being modified, its performance requirement shall be reviewed relative to the current volume. If the performance differs substantially, the need to meet the current requirement shall be evaluated by a qualified person selected by the owner (user)."

Thus, cranes manufactured prior to one year after the effective date of the 1975 edition, that is, prior to January 20, 1976, may have wood floors in their operator's cabs, but a qualified person should make an evaluation of the feasibility of using a coating to render the wood fire retardant. Such coating should be applied unless cogent reasons for not doing so can be cited.

Cranes manufactured between January 20, 1976 and October 15, 1985 may have wood floors in their operator's cabs provided the wood has been rendered fire retardant.

Cranes manufactured after October 15, 1985 must have cabs constructed of materials that do not support combustion.
Interpretation: 3-2

Subject: ANSI/ASME B30.3-1984 and ASME B30.3-1990, Hammerhead Tower Cranes, Section 3-1.16(h)

Date Issued: December 15, 1992

Question (1): What constitutes lighting protection for hammerhead tower cranes?

Reply (1): Lighting protection for hammerhead tower cranes comprises earthing (grounding) or any other means, appropriate to the location and circumstances of the installation, capable of protecting persons from injury and the crane from damage due to lighting. The Committee does not specify how such protection is to be accomplished.

Question (2): Identify equipment (manufacturers) deemed in compliance.

Reply (2): ASME is not an enforcing authority and, therefore, cannot provide the names of manufacturers who are in compliance with its standards.
**Interpretation: 3-3**

Subject: Reconsideration of Interpretation 3-2, Lightning Protection  
Date Issued: June 14, 1996

Question: Which persons does the Interpretation 3-2 intend the lightning protection to protect?

Reply: Section 3-1.16(h) states that "Lightning protection shall be provided." and Interpretation 3-2 states in part that the lightning protection shall be "capable of protecting persons from injury."

To clarify the wording of the interpretation, the volume does not intend that means be provided to protect people on the ground in the vicinity of tower crane. The "persons" referred to in the interpretation would be crane operators while in the cab of the crane.

**Interpretation: 3-4**

Subject: ASME B30.3-1990. Hammerhead Tower Cranes  
Date Issued: October 18, 1996

Question (1): Is the term "erection personnel" as used in subsection (d) distinguished from the term "crane manufacturer’s or a qualified person’s recommendations" as used in subsection (b)?

Reply (1): The "erection personnel" referred to in clause (d) are the recipients of instructions from a qualified person, whereas the "crane manufacturer’s or qualified person’s recommendations" mentioned in clause (b) are sources of information.

Question (2): Do subsections (a) through (c) require the erection personnel to develop a written plan consisting of the assist crane’s boom configuration, positioning, boom angle, radius from the center pin of the tower crane, landing areas, signal procedures, the need for a prelift meeting, the load weights of the components erected, and the sequence of events for the pick of each component part?

Reply (2): Clause (c) requires that procedures be established to implement the manufacturer’s erection/dismantling instruction before the work commences. The volume does not specify the form the "procedures’ are to take. The decision as to whether procedures shall be in writing, and their content, is left to the discretion and judgment of the qualified person that clause (b) stipulated shall supervise the work.

Question (3): What are the respective duties amongst the crane manufacturer, erection personnel, and assist crane in carrying out subsections (a) through (c)?

Reply (3): The volume lists recommendations and requirements on actions to be followed but does not address how duties are to be assigned among the parties.
**Interpretation: 3-5**

Subject: ASME B30.3-2004, Paras. 3-1.1.1(a) and (c), Crane Supports

Date Issued: January 31, 2007

Background: Paragraph 3-1.1.1 calls out specific requirements for rail tracks and rails. Paragraph 3-1.1.1(a) states, "... rail tracks shall be ... installed to support the crane loads and to transmit them to the soil or other support medium." Paragraph 3-1.1.1(c) states, "Rails shall be attached to their supports in a manner capable of resisting the applicable horizontal loads determined by the manufacturer or by a qualified person."

Question (1): Does "rail tracks" refer to the assembly of rails, supports/sleepers, spreader members, etc., and is it this assembly that shall transmit the crane's loads to the support medium?

Reply (1): Yes.

Question (2): Does "rails" refer to the specific structural element that the crane wheels are set upon, and is it this rail that shall be attached to their supports?

Reply (2): Yes.

**Interpretation: 3-6**

Subject: ASME B30.3-2004, Para. 3-3.2.1(d)(1), Construction Tower Cranes

Date Issued: September 29, 2008

Question: Is a tower crane allowed to have suspended from its hook a work box or air compressor overnight per the ASME B30.3-2004?

Reply: No. Please refer to para. 3-3.2.1(d)(1), which states, "The operator shall not leave the controls while the load is suspended."