

Interpretation: 5-1

Subject: USAS B30.5-1968

Date Issued: March 19, 1984

Question (1): Are boom stops required on locomotive cranes equipped with magnets?

Reply (1): The USAS B30.5-1968 Standard requires boom stops for cranes used for lifting service. If a crane is not being used for lifting service, B30.5-1968 is not applicable.

Question (2): What is a duty cycle crane and how is it used?

Reply (2): The Committee does not define a duty cycle crane.

Question (3): When is a crane not used as a lifting crane?

Reply (3): Nonlifting service typically encompasses activities such as demolition, excavating, and clamshell-type operations.

Question (4): What was meant or interpreted by the Committee when the following sentences were included in the scope?

(a) Some basic machine types within this scope are usually convertible for excavating work and other uses not considered to be lifting service.

(b) Cranes designed for railway and automotive wreck clearance are excepted.

Reply (4):

(a) See Reply (3) above.

(b) These are specialized machines with characteristics not covered by this Standard.

Interpretation: 5-2

Subject: ANSI/ASME B30.5-1982

Date Issued: March 19, 1984

Question: Why are cranes from 10 tons and up, especially mobile cranes that can go on the highway, not required to have load momentum indicators of the audio or video type?

Reply: In order to determine if a response can be prepared to your question, the Committee requests that you clarify the term "load momentum indicator" as the Committee is not aware of the existence of such a device.

Interpretation: 5-3

Subject: ANSI/ASME B30.5-1982

Date Issued: September 17, 1984

Question: Is para. 5-3.2.2, Personnel Lifting, of ANSI/ASME B30.5-1982 concerned solely with personnel platforms or other devices suspended from a crane hook, or is it also intended to cover those devices and platforms attached directly to the crane boom in a rigid, nonsuspended fashion?

Reply: The intent of para. 5-3.2.2 of ANSI/ASME B30.5-1982 is to apply to cranes with platforms attached to a load line. This Standard does not cover platforms or devices rigidly attached to a crane boom.

Interpretation: 5-4

Subject: ANSI/ASME B30.5-1982

Date Issued: September 17, 1984

Question: During the operation or conduction of a load test for a crane that falls under the description of ANSI/ASME B30.5-1982, what is the point of instability?

Reply: Breakaway of an outrigger does not necessarily indicate loss of stability. Under certain conditions, torsion induced in the carrier can cause frame twist and hence the breakaway of an outrigger.

The point of balance (impending tipping) is as follows: "a condition of crane loading where the load moment acting to overturn the crane is equal to the moment of the crane resisting overturning."

Interpretation: 5-5Subject: ~~ANSI~~/ASME B30.5-1982

Date Issued: February 4, 1985

Question: Paragraph 5-1.8.1(b) of ANSI/ASME B30.5-1982 calls for safety glass or *equivalent*. What is the interpretation of "or equivalent" and what criteria must the glazing materials meet?

Reply: The B30 Committee's intent of "or equivalent" in para. 5-1.8.1(b) of ANSI/ASME B30.5-1982 means a material offering functionally equivalent personnel protection of safety glass and, at the same time, providing the combination of physical properties required for the particular application.

The Committee has a policy of not endorsing any specific product and leaves the determination of equivalency in the hands of the user guided by the foregoing information.

Interpretation: 5-6

Subject: ANSI/ASME B30.5-1982

Date Issued: February 4, 1985

Question: With regard to the "Emergency Stop" signal of Fig. 16 of ANSI/ASME B30.5-1982, the arrows shown pictorially seem to indicate that both arms should be moving in a vertical direction, however, the verbiage states "Move Arms Back and Forth Horizontally." What was the Committee's intent?

Reply: The Committee's intent was as specified in the verbiage: to move the arms back and forth horizontally. In the later B30 Standards, the arrows for this signal have been revised to attempt to clarify the intent. These arrows have been incorporated in the 1985 addenda to B30.5-1982.

Interpretation: 5-7

Subject: ANSI/ASME B30.5-1982

Date Issued: May 23, 1985

Question: What was intended by the term "frequently interrupted" in para. 5-3.1.3(e)(7) of ANSI/ASME B30.5-1982 and would this paragraph permit the operator to be out of the cab with the engine running while a crew of men are freeing outriggers which are stuck in the frozen ground?

Reply: Paragraph 5-3.1.3(e)(7) is the exception to para. 5-3.1.3(e)(6) and permits the crane operator to exit the crane while the engine remains running when the operation is frequently interrupted during a shift.

It is the consensus of the B30 Committee that the intent of the term "frequently interrupted" may be invoked during the circumstances such as that cited in para. 5-3.1.3(c), "When a signal person or crane follower is not required as part of the crane operation, the crane operator is then responsible for the lifts."

However, prior to leaving the crane unattended, the operator shall assure that the requirements of para. 5-3.1.3 of this Standard have been fully complied with.

These prescribed actions, consciously taken, will permit the crane operator to leave the crane controls to necessarily participate in an operational circumstance without compromising safety.

Interpretation: 5-8**Subject:** ANSI/ASME B30.5-1982**Date Issued:** September 12, 1985

Question: What is the rationale for not requiring roll-over protective structure (ROPS) currently on mobile hydraulic cranes?

Reply: The applicable B30 Standards were prepared by engineers and other knowledgeable personnel who are thoroughly familiar with all aspects of crane application, use, design, and manufacture. This committee gave consideration to the inclusion of safety equipment in the standard which it felt was necessary. Up until this time, the committee has not received convincing evidence that ROPS cabs would make a contribution to the safe operation of mobile hydraulic cranes.

The B30 Committee diligently addresses all known hazards and has established a Task Group to further study the ROPS subject. At this time, the Task Group is attempting to obtain credible data which would enable them to further assess the conditions which would require the installation of ROPS on mobile hydraulic cranes.

Interpretation: 5-9**Subject:** ANSI/ASME B30.5-1982**Date Issued:** December 12, 1985

Question (1): Does this Standard apply in any way to gin pole winch trucks? If so, specifically how? If not, why not, and are you aware of any safety standards that do?

Reply (1): The ANSI/ASME B30.5 Standard is not applicable to gin pole winch trucks. ANSI/ASME B30.5 is applicable to the equipment described in Section 5-0.1 (Scope), and depicted in Section 5-0.2 (Definitions) and Figs. 1 through 10, inclusive. Principally, all of these cranes rotate 360 deg. and have boom luffing capabilities. Gin pole winch trucks do not have these unique functional characteristics. Standards for gin pole winch trucks are not within the scope of the B30 Committee and the Committee is not aware of existing applicable standards.

Question (2): What are the specific reasons for prohibiting wrapping the hoist rope around the load and requiring the load to be attached to the hook by slings or other devices [paras. 5-3.2.1.2(a) and (b)]?

Reply (2): Paragraph 5-3.2.1.2 clearly prohibits wrapping the hoist rope around the load to be handled. Wrapping the hoist rope around the load is discouraged because of the potential damage to the rope remaining on the crane for successive future lifts. Such damage may contribute to rope failure.

Question (3): Do the references to a "suspended" load (para. 5-3.2.1.3) refer only to a load supported by the hoist rope and sling or other similar device during a lift, or do these references also apply to a load temporarily resting (and possibly precariously so) on some object so as to provide clearance beneath the load through which to pass the sling or other similar device, in preparation for the lift?

Reply (3): Paragraph 5-3.2.1.3 refers to unencumbered, freely suspended loads from the hoist. Loads resting as described are subject to forces outside the hoist system and cannot be controlled by the crane.

Interpretation: 5-10

Subject: ANSI/ASME B30.5-1982

Date Issued: March 4, 1986

Question: The swing brake clause in ANSI/ASME B30.5-1982 states, "A brake with adequate holding power in both directions shall be provided to prevent movement of the rotating superstructure under normal operation." Should a brake which meets this requirement be able to stop the boom swing just after the crane platform starts to tip? What measurable criteria should be used to determine if a crane meets this requirement?

Reply: Section 5-1.4, Swing Mechanism, establishes the rotating functional requirements for mobile and locomotive cranes identified in ANSI/ASME B30.5-1982. More specifically, para. 5-1.4.2(a) requires a braking means to control and restrict the movement of a crane's rotating superstructure during normal operation. Correspondingly, Section 5-0.2, Definitions (p.8), defines normal operating conditions for cab- or station-operated cranes as conditions during which a crane is performing functions within the manufacturer's operating recommendations. Further, para. 5-3.4.6, Footing, recommends a firm stable foundation level within 1% to support an operating crane. It is patently clear that by operating a crane beyond the manufacturer's established parameters (e.g., leveling, stable foundation, tipping, etc.), a component's intended functional characteristic may be exceeded. Swing mechanisms designed to function in a level plane shall start and stop with controlled acceleration and deceleration.

Interpretation: 5-11

Subject: ANSI/ASME B30.5-1982

Date Issued: March 4, 1986

Question: Why is the dead end of the wire rope that runs through a wedge socket, as detailed and illustrated in ANSI/ASME B30.5-1982, para. 5-1.7.3(d) and Fig. 14A, not secured to the live end with clips?

Reply: Attaching the dead end of the wire rope to the live side of the line with the clip will significantly reduce the strength of the wire rope and the wedge socket's efficiency. The clip fastened to the live end could ultimately transfer the applied loads, act as a stress riser, and could deform and break the wire rope. The fastening recommended in ANSI/ASME B30.5 is not new or unproven. It has been successfully applied and publicized from the early 1970s.

Interpretation: 5-12

Subject: ANSI/ASME B30.5-1982 and ANSI B30.15-1973

Date Issued: May 27, 1986

Question (1): Explain the reasons underlying the most recent 1982 revision of B30.5, especially with respect to the consolidation of B30.15 and the elimination of the "anti-two block" requirement language including the reference to boom length.

Reply (1): The B30 Committee, under the sponsorship of the American Society of Mechanical Engineers (ASME), reviews and revises current standards, makes them consistent with changes in design and advancement in techniques, and in the general interest of labor and industry safety on a continuing schedule. In consonance with these and other applicable B30 Committee policies and procedures, the consolidation of ANSI B30.15-1973, Mobile Hydraulic Cranes, with the revision of USAS B30.5-1968, Crawler, Locomotive and Truck Cranes, into the present ANSI/ASME B30.5, Mobile and Locomotive Cranes, was a natural evolution combining similar standards and families of cranes.

Initially, when the B30.15 standard for mobile hydraulic cranes was drafted for promulgation in 1973, incidents of two-blocking were occurring primarily with the small utility yard cranes, where less qualified itinerant operators were frequently permitted to operate the crane. This was in contrast with the experienced professional operators on construction projects using the larger cranes with longer booms, where skilled operators were the rule rather than the exception. The 60 ft boom limitation was adopted to distinguish the two situations. Further, at that time, technical advancements in telescoping hydraulic booms for long boom crane service were not sufficient to warrant this requirement. However, during the consolidation of B30.15-1973, Mobile Hydraulic Cranes, and USAS B30.5-1968, Crawler, Locomotive and Truck Cranes, the technical advancement in telescoping booms and their increased use in long boom crane service was recognized. As previously iterated, in keeping with the Committee's practice of updating its standards, the boom length limitations were removed from the current B30.5 standard for mobile and locomotive cranes.

Question (2): Assume a hydraulic crane with boom extendable to 60 ft. Applying ANSI Standard B30.15, adopted in 1973, is an "anti-two block" device required?

Reply (2): The ANSI B30.15-1973 standard for mobile hydraulic cranes required a two-blocking damage preventive feature on cranes with a boom length of less than 60 ft. This provision was made advisory in the revised, consolidated ANSI/ASME B30.5-1982 standard for mobile and locomotive cranes.

Interpretation: 5-13

Subject: USAS B30.5-1968 and ANSI/ASME B30.5-1982

Date Issued: September 11, 1986

Question: Does the following interpretation of B30.5-1968, issued by the B30 Committee in 1970, still apply?

"Paragraph 5-1.3.2a.4 of B30.5 Standard states 'Positive means controllable from the operator's station shall be provided to hold the drum from rotating in the lowering direction and be capable of holding the rated load indefinitely without further attention from the operator.' Members of the B30 Committee present at the Daytona Beach meeting voted unanimously that the intent of paragraph 5-1.3.2a.4 was that the positive means controllable from the operator's station can be accomplished with latched foot controlled brakes which have continuous mechanical linkage between the actuating and braking means. It is not the intent of the Committee that locking pawls or dogs should be installed or used in conjunction with the load hoist drums.

"This is further covered in paragraph 5-1.3.2b.1 & 2, which states that an automatic means shall be provided if the brakes do not have a continuous mechanical linkage between the actuating and braking means. This also states that the foot operated brake pedals shall be equipped with a means for latching in the applied position."

Reply: The B30 Committee has voted to reaffirm this interpretation and believes the revised wording of the 1982 Standard takes this into account.

Interpretation: 5-14

Subject: USAS B30.5-1968

Date Issued: December 11, 1986

Question (1): Is the roof of a cab considered to be an outside platform as referred to in para. 5-1.8.2(b), or is the intent only to describe platforms on essentially the same level as the floor of the operator's area?

Reply (1): The B30 Committee does not consider the roof of the cab to be an outside platform.

Question (2): With regard to the roof surface of the cab, does Section 5-1.8 establish, for the roof of an operator's cab on a truck crane, any requirements other than those spelled out in para. 5-1.8.4?

Reply (2): If the cab roof is designated as a work area, access shall be provided in accordance with para. 5-1.8.4. When designated as a work area, the cab shall be provided with a skid resistant surface in accordance with para. 5-1.8.3(c).

Interpretation: 5-15

Subject: ANSI/ASME B30.5-1982

Date Issued: December 11, 1986

Question: Please clarify or interpret para. 5-1.3.1(c) as it applies to luffing jibs on telescopic cranes. Would a hydraulic driven boom hoist winch (power hoist and lowering) with check valve and disk brakes satisfy the requirement for "other locking device?"

Reply: B30.5 does not specifically address powered luffing jibs.

Interpretation: 5-16

Subject: ANSI/ASME B30.5-1982

Date Issued: December 11, 1986

Question: Promotional literature showing wire rope breaking strengths and sling rated capacity charts is being handed out to crane users. These charts are intended to be posted inside the operator's cab on mobile cranes. B30.5 does not disallow anything other than the crane manufacturer's charts. Does the B30 Committee think it is necessary?

Reply: The B30 Committee feels that information can be added to the crane cab by the user to supplement information provided by the crane manufacturer. However, this information shall not be in conflict with information provided by the crane manufacturer. This material shall not obscure the information provided by the crane manufacturer and not interfere with the operation of the crane.

Interpretation: 5-17

Subject: ANSI/ASME B30.5-1982

Date Issued: March 17, 1987

Question (1): What crane cab design criteria are included in the subject standard?

Question (2): Should the subject standard include such design criteria? Do they include structural strength requirements?

Question (3): If the standards do not presently incorporate cab design and strength requirements, is it known if any studies or work are being done to include such requirements?

Question (4): Are cab strength requirements considered to be a reasonable way of approaching this problem?

Question (5): What other protection is afforded the operator by the subject standard should a mobile crane upset occur?

Reply: As concerns Question (1), the construction of crane cabs is included in Section 5-1.8 of ANSI/ASME B30.5-1982, but the design requirements in this section do not cover cab strength in the context addressed by the inquiry.

In response to Questions (2) through (4), the B30 Committee had convened a Task Group on Operator Protection. The Task Group is charged:

“To serve as a fact-finding Task Group to study the need, feasibility, and practicality for operator protection...”

To date, the Task Group has recommended that single control station wheel mounted cranes be provided with seat belts for use during transit and travel. This recommendation has been proposed for inclusion in the 1987 Addenda to B30.5.

The Task Group is going forward with its work concerning tipovers that occur during crane operation and other matters addressed in its charge. Until further findings are presented to the B30 Committee for consideration, the Committee can offer no additional guidance on the matter.

In response to Question (5), although the Committee is cognizant that tipovers occur, the B30.5 Standard in Chapter 5-3 stresses proper operating practices and operator qualifications as a means toward preventing crane tipovers. The Standard does not include protection for the operator in the event of a tipover.

Interpretation: 5-18

Subject: ANSI/ASME B30.5-1982

Date Issued: October 7, 1987

Question: What is the intent of para. 5-3.2.2(b)(11) concerning inclination of personnel lift platforms due to movement of personnel on the platform?

Reply: The B30 Committee recognizes that requirements for inclination will vary in practice just as the size, shape, and function of personnel lift platforms will vary from application to application. The Committee's intent is to require consideration of the effect on inclination when a suspension system is designed. For example, it would appear to be obvious that a two-point suspension is not acceptable. But, in the case of a one person basket type platform, such suspension can be adequate and stable.

Interpretation: 5-19

Subject: ANSI/ASME B30.5-1982

Date Issued: December 29, 1987

Question: Were any specific tests considered when the qualifications referred to in para. 5-3.1.2(e) were developed?

Reply: These were intended only as general guidelines stating that operators should be relatively normal regarding the physical requirements of these paragraphs.

There were no specific tests considered when these qualifications were developed. It is felt that any deficiencies in these areas would be exposed during the period of operator training.

Interpretation: 5-20

Subject: USAS B30.5-1968

Date Issued: March 21, 1988

Question: What is the Committee's interpretation of the definition of the word "crushing" as used in para. 5-3.2.3i.1?

Reply: The intent of para. 5-3.2.3i.1 is that the wood blocks shall have the structural integrity such as not to cause out of level conditions in normal operations.

Interpretation: 5-21

Subject: ANSI/ASME B30.5-1982

Date Issued: July 28, 1988

Question: Has the B30 Committee's rationale for not requiring ROPS on mobile hydraulic cranes, as reflected in the Committee's reply of September 12, 1985, changed?

Reply: As indicated in our reply of September 12, 1985, a Task Group of the B30 Committee was established to study the ROPS subject. The Task Group, after reviewing the data made available to them, submitted their recommendations to the B30 Main Committee.

The Committee voted to accept the Task Group's recommendation that requirements for hard cabs not be added. It was felt that there is insufficient evidence at this time to support the addition of these requirements. If further evidence is submitted, the Committee can give further consideration to this subject.

Interpretation: 5-22

Subject: ANSI/ASME B30.5-1982

Date Issued: September 21, 1989

Question: What is the rationale for para. 5-1.7.5(a) of ANSI/ASME B30.5-1982?

Reply: The 15:1 ratio was established many years ago based on practical machine configuration and over the years has proven to be good design practice.

The rationale for the provisions of this Standard reflects the consensus of the individuals in the categories of interest who approved the wording in the Standard through ASME Committee and Supervisory Board actions and by public review in *Mechanical Engineering*, ANSI Standards Action, and final approval by the American National Standards Institute.

Interpretation: 5-23**Subject:** USAS B30.5-1968**Date Issued:** March 20, 1990

Question (1): Does B30.5-1968 require an automatic means to prevent the load from falling in the event of loss of brake actuating power for a mechanical brake system continuous from the brake pedal to the brake?

Reply (1): No, it does not. Para. 5-1.3.2(b)(1) addresses brake systems using nonmechanical means, such as compressed air, hydraulic fluid, or electrical signals, to activate the brakes. For such systems, the brakes must be arranged to engage automatically in the event of failure of the activating means, i.e., loss of air pressure.

Question (2): Is there an unstated "spirit" of the standard or other nonliteral interpretation?

Reply (2): No. The clause in question states its requirements directly.

Question (3): Are there any other Standards, Regulations, or Recommended Practices incumbent upon a manufacturer of general purpose cranes relative to brake arrangement or design other than ANSI/SAE J983 which is referred to in para. 5-1.6.1(a) and ANSI/SAE J898?

Reply (3): This Committee offers interpretations and/or clarifications of its standards, but this Committee is not equipped to offer research services regarding other standards.

Interpretation: 5-24**Subject:** ASME/ANSI B30.5-1989**Date Issued:** July 23, 1990

Question: Does the language of para. 5-3.4.5 refer to the actual contractor or subcontractor using the cranes, or does this language refer to the party ordering the work to be completed?

Reply: The intent of this Standard when referring to "the person responsible for the job" is not for identifying any entity but the person who has been placed in charge of the work being performed. He may be designated as the "person responsible for the job" by the contractor, subcontractor, or the party ordering the work to be completed.

Interpretation: 5-25

Subject: ASME/ANSI B30.5-1989

Date Issued: July 23, 1990

Question: Is it the intent of para. 5-3.2.1.4(h) to prevent manufacturers from producing a load chart for intermediate outrigger positions?

Reply: The answer to the question is no. The intent of this paragraph is to advise the user of the stipulations of the manufacturer's load charts. Mobile cranes have load charts that reference only two attitudes of outrigger application, one for rated loads on outriggers fully extended and set, and one for on rubber. There is no intermediate chart furnished by the manufacturers with the crane at this time. Intermediate ratings may be furnished by the manufacturer for special application upon request.

Interpretation: 5-26

Subject: ASME/ANSI B30.5-1989

Date Issued: July 23, 1990

Question (1): Does a crawler crane used with a clamshell basket for moving wood from a pile to a waterway come under the jurisdiction of OSHA 1926.550?

Reply (1): The B30 Committee cannot address the jurisdiction of OSHA.

Question (2): Does a crawler crane used with a clamshell basket for moving wood from a pile to a waterway come under the jurisdiction of ASME/ANSI B30.5?

Reply (2): ASME/ANSI B30.5 applies to crawler cranes when used as lifting cranes. The Committee is not familiar with the term "clamshell basket" and can only assume it is being used in the manner for which it was designed and intended. The crawler crane is being used as defined in Section 5-0.2, Definitions, and for a use not excluded by Section 5-0.1, Scope. As such, B30.5 is applicable to the equipment.

Question (3): How should a crawler crane with a clamshell basket used for moving wood from a pile to a waterway be classified?

Reply (3): ASME/ANSI B30.5 does not classify crawler cranes or any other applicable cranes.

Question (4): Can a rough terrain hydraulic crane be inspected on a 100 hr time operation instead of a fixed monthly inspection?

Reply (4): ASME/ANSI B30.5 does not specify "fixed monthly" inspections. It does specify "frequent" inspections during a period not less than one day or more than one month and "periodic" inspections of not less than one month or more than one year. The exact interval of these two classifications of inspections are dependent upon the nature of the critical components of the crane and the degree of their exposure to wear, deterioration, or malfunctions. It is perfectly acceptable to accomplish the appropriate inspections on an hour of operation cycle within these classification criteria.

Interpretation: 5-27

Subject: ASME/ANSI B30.5-1989

Date Issued: July 23, 1990

Question: Is a cut-off dead end at a wedge socket considered as heat damage under para. 5-2.4.3(b)(5) of ASME/ANSI B30.5 when the cut-off is made with a cutting torch?

Reply: Para. 5-2.4.3(b) is intended to alert people to a number of conditions that may require rope replacement. The conditions concern rope damage or wear that indicate loss of rope strength; the purpose of the alert is to achieve rope replacement before the rope fails. A dead end of a rope at a wedge socket is unloaded and hence cannot be a cause of failure. Therefore, the condition of a torch-cut end at a wedge socket does not, per se, comprise evidence of heat damage in the context of para. 5-2.4.3(b)(5).

Interpretation: 5-28

Subject: ASME/ANSI B30.5-1989

Date Issued: July 23, 1990

Question: Who is the responsible party or entity that must appoint the signal person required under para. 5-3.4.5(a)(4) of ASME/ANSI B30.5?

Reply: ASME/ANSI B30.5-1989 does not address the issue of which party or entity appoints a signal person, but does stipulate that a signal person must be assigned when cranes are to operate near energized electrical power lines. However, para. 5-3.1.3(d) requires that the operator consult with the supervisor before handling loads whenever there is any doubt as to safety.

Interpretation: 5-29

Subject: ASME/ANSI B30.5-1989

Date Issued: July 23, 1990

Question (1): Does para. 5-3.1.2(a) of ASME/ANSI B30.5 require that a proposed operator demonstrate proficiency in the assembly or disassembly of the particular make, model, and configuration of the crane to which it is anticipated he will be assigned?

Reply (1): No.

Question (2): What is meant by "satisfactory evidence of qualifications and experience"?

Reply (2): Para. 5-3.1.2(a) states that the employer shall require a written or oral exam and a practical operating exam unless he is satisfied with the operator's evidence of qualifications and experience.

Question (3): Is it contemplated by the Standard that such evidence include any particular amount, if any, of prior experience with assembly or disassembly of the particular make, model, and configuration of equipment involved?

Reply (3): No.

Interpretation: 5-29(R)

Subject: ASME/ANSI B30.5-1989

Date Issued: September 24, 1990

Question (1): Does para. 5-3.1.2(a) of ASME/ANSI B30.5 require that a proposed operator demonstrate proficiency in the assembly or disassembly of the particular make, model, and configuration of the crane to which it is anticipated he will be assigned?

Reply (1): No. While a demonstration is not necessary, knowledge of certain assembly and disassembly procedures should be required such as boom assembly and disassembly, counterweight removal, jib installation, power pinning of hydraulic booms, etc.

Question (2): What is meant by "satisfactory evidence of qualifications and experience"?

Reply (2): Para. 5-3.1.2(a) states that the employer shall require a written or oral exam and a practical operating exam unless he is satisfied with the operator's evidence of qualifications and experience.

Question (3): Is it contemplated by the Standard that such evidence include any particular amount, if any, of prior experience with assembly or disassembly of the particular make, model, and configuration of equipment involved?

Reply (3): No.

Interpretation: 5-30

Subject: ASME/ANSI B30.5-1989

Date Issued: September 24, 1990

Question (1): With regard to para. 5-3.1.2(a), does the Standard mean an operator must pass a written examination on each crane on the work site that the operator will be operating?

Reply (1): No. The phrase "specific type" is intended to relate to the general crane configurations illustrated in Figs. 1 through 10, Section 5-0.2, not each crane from different manufacturers. However, if there are several unique cranes of the same specific type, efforts should be made to ensure that the operator is knowledgeable of the unique aspects of each piece of equipment.

Question (2): Do operators need to qualify on each of the cranes which are made by different crane manufacturers, or just on a hydraulic crane and a lattice boom crane, with a written examination and a practical operating examination?

Reply (2): Same as Response (1).

Question (3): Will the same rule apply to overhead cranes, which are in several different buildings and are manufactured by several different crane manufacturers?

Reply (3): No. B30.5 does not apply to overhead cranes. However, the principle of qualifying operators of cranes is addressed in all ASME/ANSI B30 Standards with various degrees of detail. ASME B30.2, Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist); ASME/ANSI B30.11, Monorails and Underhung Cranes; ASME/ANSI B30.16, Overhead Hoists (Underhung); and ANSI/ASME B30.17, Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist) may apply to the cranes that have been installed and should be reviewed for guidance.

Question (4): Is it permissible for a photocopy of a load chart to be used in place of the original load chart on a mobile crane?

Reply (4): Yes, provided it satisfies the requirements of ASME/ANSI B30.5. para. 5-1.1.3(a).

Interpretation: 5-31

Subject: ASME/ANSI B30.5-1989

Date Issued: December 13, 1990

Question (1): Does para. 5-3.1.2(a) require examination of an operator for each of the crane types illustrated in Figs. 1-10 even if the operator is intended to operate only one type of vehicle?

Reply (1): No. Examination is required only for the type of crane that will be operated.

Question (2): Does an operator have to be reexamined before being permitted to operate a crane of the same specific type but of heavier capacity?

Reply (2): Not if the cranes are of the specific type; however, if the second crane is equipped with attachments (e.g., jigs, extensions, heavy lift equipment) not present on the crane for which the operator has been qualified, a new examination is required.

Interpretation: 5-32

Subject: ASME/ANSI B30.5-1989, paras. 5-3.1.2(b)(1), (2), (3), and (4)

Date Issued: September 18, 1991

Question (1): Were any specific tests considered when the physical qualifications referred to in paras. 5-3.1.2(b)(1), (2), (3), and (4) were developed?

Reply (1): No.

Question (2): What is required to verify physical qualifications under paras. 5-3.1.2(b)(1), (2), (3), and (4)? A doctor examination?

Reply (2): That is up to the verifier.

Interpretation: 5-33

Subject: ASME/ANSI B30.5-1989, para. 5-3.1.2(b)(1)

Date Issued: December 16, 1991

Question (1): The subject paragraph states: "(b) Operators and operator trainees shall meet the following physical qualifications:

(1) vision of at least 20/30 Snellen in one eye and 20/50 in the other, with or without corrective lenses;"

Does this imply that a crane operator must have two eyes?

Reply (1): Yes.

Question (2): Is there a general consensus that a person with only one eye (20/30 Snellen for example) has difficulty with depth perception and field of vision?

Reply (2): Yes.

Question (3): Can a person with only one eye receive a written "variance" from a medical professional which attests to his/her depth perception and field of vision, hence allowing that person to be waived on the 5-3.1.2(b)(1) and 5-3.1.2(e)?

Reply (3): Paragraph 5-3.1.2(b)(1) requires the operator to have two eyes. A written "variance" attesting to the operator's depth perception and field of vision would not satisfy the stated requirement. Paragraph 5-3.1.2(e) specifies that "Operators and operator trainees should have normal depth perception and field of vision . . ." A medical professional attesting to this ability would satisfy the requirements of para. 5-3.1.2(e).

Question (4): Can a person with only one eye perform a variety of operating activities (lifts, etc.) in an attempt to prove his/her "compensations" for depth perception and field of vision?

Reply (4): The exact method of determining an operator's or operator trainee's qualifications is left up to the qualifying employer. Practical examinations are specified in para. 5-3.1.2(a).

It should be noted that the introduction of this Standard volume states: "The rules given in the Standard must be interpreted accordingly, and judgement used in determining their application."

Interpretation: 5-34

Subject: ASME/ANSI B30.5-1984, para. 5-1.9.1(h)

Date Issued: March 16, 1992

Question: Paragraph 5-1.9.1(h) of ASME/ANSI B30.5-1984 states that, "Prototype booms of production models of telescopic cantilever booms shall meet the performance requirements of ANSI/SAE J1063."

Does this mean the same as para. 22-1.8.5 of B30.22 or does the term "meet the performance requirements" mean that load testing to the applicable design factors can be used in lieu of the strain gage testing?

We think that there are other methods which are more appropriate for small cranes than the non-destructive strain gaging approach, but ASME/ANSI B30.5 seems to allow only this method unless the term "meet the performance requirements" can be interpreted to allow test by other methods such as overloading to the Design Factors specified in J1063. The application of the J1063 procedure may be more than necessary for the smaller cranes typically used for field service work. Building and testing to destruction, the cranes at the lower end of the range covered (cranes with capacities greater than one ton) is a more traditional approach and just as effective but depending on the interpretations these cranes may be excluded from compliance with B30.5.

Reply: Paragraph 5-1.9.1(h) of B30.5 does mean the same as para. 22-1.8.5 of B30.22. The intent of SAE J1063 is to identify the maximum loading conditions for structural members of cantilevered telescoping boom cranes. The crane must then be strain gage tested under those loading conditions. For cantilevered prototype booms of production models there is no deviation.

Interpretation: 5-35

Subject: ASME/ANSI B30.5-1989, para. 5-1.6.1(d)

Date Issued: March 23, 1992

Question (1): Paragraph 5-1.6.1(d) of ASME/ANSI B30.5-1989 states that, "Remote-operated cranes shall function so that if the control signal for any crane motion becomes ineffective, the crane motion shall stop."

Does this apply to both wireless remote control and wired pendant controls? Some current wireless systems provide logic which causes crane functions to shut down if there is any interference with the reception of the signal.

Reply (1): Paragraph 5-1.6.1(d) does not specify the control medium and applies to any type of remote control.

Question (2): On wired remote pendants provisions for radio interference are not a concern, so does this requirement apply?

Reply (2): See Reply (1).

Question (3): There may be redundant systems on wired pendants which will cause crane operation to cease if a component fails but may require the operator to move the control to the neutral position. Does this comply with the intent of this paragraph?

Reply (3): See Reply (1).

Question (4): Paragraph 5-1.6.1(e) of ASME/ANSI B30.5-1989 states that, "Provisions shall be made for emergency stop in the event of a device malfunction for remote-operated cranes."

Does this require a separate emergency shutdown device operated by an "EMERGENCY SHUT DOWN" control or will the use of redundant components which require both components to be activated for the system to operate be acceptable?

Reply (4): Paragraph 5-1.6.1(e) is self-explanatory, stating that if there is a malfunction of the control device there shall be an emergency stop.

Interpretation: 5-36

Subject: ASME/ANSI B30.5-1989

Date Issued: August 21, 1992

Question: I have recently received inquiry concerning installation of a hoist, which would comply with B30.7 design requirements, on the boom of the forklift, to be used as a material lifting device. Maximum capacity of the hoist would be limited to the minimum rated capacity of the forklift.

Would a forklift, equipped and rated as described, need to meet design criteria of mobile and locomotive cranes as set forth in ASME/ANSI B30.5-1989?

Reply: The scope of B30.5, as stated in Section 5-0.1, is "... applies to crawler cranes, locomotive cranes, wheel-mounted cranes, and any variations thereof which retain the same fundamental characteristics." Your machine does not have the fundamental characteristic of "Boom Swing," or "Rotation," independent of the vehicle chassis, so it would not be subject to this standard. The question of whether the equipment design "would" or "would not" need to meet the criteria set forth in B30.5 must be left to the manufacturer for final determination.

Interpretation: 5-37

Subject: ASME/ANSI B30.5b-1991

Date Issued: August 21, 1992

Question: In para. 5-3.2.1.4(h)(3), what is meant by the term "outer bearing surface" of the extended outrigger beam in reference to the placement of blocking?

Reply: The intent is to ensure that the blocking is located under the outrigger beam at the specified location where the outrigger is to receive the vertical ground reaction load. Both structural and stability capacity limitations are based upon this location. The blocking can of course be under the outrigger bearing device, such as the outrigger float.

Interpretation: 5-38

Subject: ASME/ANSI B30.5a-1990

Date Issued: October 6, 1992

Question: Is it the intent of para. 5-3.2.2(a)(1), and specifically the words "work function," to eliminate or prohibit personnel lifting of persons not involved in work, such as sightseers, tourists, or others seeking amusement or thrills such as bungee jumping by patrons?

Reply: This volume and Section must be read within the stated overall purpose of the B30 Standard. Section II of the B30 Introduction states that the purpose of the ASME standards are to "... guard against and minimize injury to workers and otherwise provide for the protection of life, limb, and property by prescribing safety requirements."

The Section you question supports this purpose by requiring a responsible individual to evaluate all hazards, alternatives, and practicalities prior to allowing a worker to be lifted by a crane. Clearly, this volume and Section were written to address work environments with no consideration given to, or approval for, "amusement" activities. This Committee does not consider handling personnel for recreation an appropriate use of any equipment which comes within the scope of the B30 Standard.

Interpretation: 5-39

Subject: ASME/ANSI B30.5d-1988

Date Issued: December 14, 1992

Question: In para. 5-3.1.1(a)(3), when test personnel are required to load test a crane, are they considered an operator and have to meet all the qualifications listed in para. 5-3.1.2? Are they also required to have an annual physical exam?

Reply: In response to both questions, yes. Anyone that operates a crane with a load on the hook (or attachment point) for either production lift or test procedures shall meet the qualifications of an operator as listed in para. 5-3.1.2.

Interpretation: 5-40

Subject: ASME/ANSI B30.5-1989

Date Issued: December 17, 1992

Question (1): In para. 5-3.1.2(b)(1), what is the basis for this visual standard?

Reply (1): The B30.5 volume is part of a consensus Standard not a law. The volume requirements are the consensus of individuals in the industry on issues that effect the safety of the equipment covered in the volume. The visual requirement stated in para. 5-3.1.2 is such a consensus requirement.

Question (2): Could the standard be waived for an individual with 20/20 sight in one eye and blind in the other who has previous experience as a mobile crane operator? If so, what is the process to issue the waiver?

Reply (2): Yes, the standard can be waived, but not by the B30 Committee. As stated in Section III, the Committee does not "... approve, certify, rate, or endorse ..."; nor does it issue waivers. In the introduction to the Standard it says, "One purpose of the Standard is to serve as a guide to governmental authorities having jurisdiction over subjects within the scope of the Standard. It is expected, however, that the Standard will find a major application in industry, serving as a guide to manufacturers, purchasers, and users of the equipment." Therefore, a waiver would have to come from either a governmental authority, if applicable, or from the employer of the individual concerned.

Question (3): In light of the American with Disabilities Act (ADA), is your committee reviewing the physical requirements of this section and other sections?

Reply (3): No. However, the entire set of Operator Qualification requirements and procedures is currently under review to reflect the demands and needs of today's industry.

Interpretation: 5-41

Subject: ASME/ANSI B30.5-1989

Date Issued: March 11, 1993

Question: When a wire rope is cut off with a cutting torch with the ends of all wires and strands welded together and then placed in a wedge socket, does this constitute damage?

Reply: In your letter you reference the July 23, 1990 B30 response to Interpretation 5-27. While the subject of Interpretation 5-27 and your question are similar and associated with each other, they address two separate conditions which should be handled separately.

Since you referenced Interpretation 5-27, this Committee reviewed its response. We feel the July 23, 1990 response continues to be correct and appropriate to the question posed.

Our appraisal of your question is that it covers another set of circumstances; that being, the possibility of a rope problem if all of the wires and strands are welded together before being placed around the small diameter bend of a wedge. We concur with your opinion that this may lead to a rope problem. To support that opinion, we have referenced item (2) from page 34 of the "Wire Rope Users Manual," second edition, published by the Wire Rope Technical Board. Item (2) states that this action may lead to "high strands and wavy rope."

While this Committee agrees with your position that this action may lead to a rope problem, the action of cutting the wire rope and welding the ends does not constitute "rope damage," per se. If a condition of high strands and/or wavy rope develops, para. 5-2.4.3(b)(4) would apply. This situation refers to "kinking, crushing, birdcaging, or any other damage resulting in distortion of the rope structure."

Interpretation: 5-42

Subject: Your letter of August 23, 1993, requesting interpretation of ASME/ANSI B30.5-1989

Date Issued: September 17, 1993

Question: Is there a recommended safety design factor under any section of ASME/ANSI B30.5 for the boom structure of a wheeled vehicle?

Reply: In response to your question, yes. ANSI/ASME B30.5-1989, Section 5-1.9.1, Booms, requires that lattice booms and telescopic cantilevered booms meet the performance requirements of ANSI/SAE J987 and J1063, respectively. They contain the allowable design factors for specified test conditions.

Interpretation: 5-43

Subject: ASME/ANSI B30.5b-1991

Date Issued: March 22, 1994

Question (1): In Section 5-1.5.3(c), does reference to a retarder or similar device envision an engine retarder?

Reply (1): Yes.

Question (2): Can you supply any information on "similar devices"?

Reply (2): No, but there are systems available which provide braking at the vehicle's power train beyond the engine output shaft. These devices are available within the industry.

Question (3): How would you characterize a steep grade?

Reply (3): In this context a "steep grade" can be characterized as one that, considering degree and length of slope, may present a significant hazard to be negotiated by a crane in a particular configuration. The capability of various cranes to negotiate specific grades will vary based on the manufacturer's design criteria. The manufacturer of the crane should be consulted to obtain gradeability limitations.

Interpretation: 5-44

Subject: ANSI/ASME B30.5-1989

Date Issued: March 22, 1994

Question (1): What is the basis for the recommendation in para. 5-3.2.2(a)(21) that "personnel platforms should not be used in winds in excess of 15 mph"? Was this recommendation based on a technical analysis of the behavior of personnel lift platforms in wind or was it based on field experience for the worst sail-area configuration of a personnel lift platform?

Reply (1): The wind speed of 15 mph as stated in para. 5-3.2.2(a)(21) is advisory in nature and is characterized by the use of the word "should." The recommendation is based on the consensus from the technical expertise of the Committee.

Question (2): Is the 15 mph wind speed in Question (1) average wind speed, steady wind speed, or wind gusts?

Reply (2): The wind speed mentioned in the volume, 15 mph, is not further defined as being average or peak. That is subjective and must be considered together with other circumstances.

Question (3): If the 15 mph wind speed in Question (1) is average or steady wind speed, how are wind gusts taken into account?

Reply (3): Wind gusts cannot be directly addressed by provisions in the volume because of their extreme variability. Therefore, management responsibility for the task must consider wind gusts when they occur and act accordingly to avoid injury.

Question (4): Is the Committee agreeable to changing para. 5-3.2.2(a)(21) to read: "Personnel platforms should not be used in winds of excess of 20 mph average wind speed"?

Reply (4): No.

Question (5): Is there a method available or does the Committee have a recommended method, analytical or experimental, to determine allowable, safe wind speeds for specific personnel lift platforms?

Reply (5): The stability of the platform and safety of the lifted personnel are the considerations that shall be evaluated when determining safe wind speed. Also, considerations are not identical for specific personnel platforms but may include the crane configuration and environmental conditions.

Question (6): What accidents were reported in the last 5 to 10 years for personnel lift platforms in which wind was a factor? Please provide any data available on such accidents, such as known wind speed at the time of the accident and configuration of the personnel lift platform involved.

Reply (6): Neither the Committee nor its Subcommittees gather specific accident data.

Interpretation: 5-45

Subject: ASME B30.5d-1993

Date Issued: September 22, 1994

Question (1): In Section 5-3.2.2, is the requirement that personnel are only to ride in a personnel platform or boom mounted basket intended to preclude persons from riding the load and/or "head-ache" ball and thereby exposing themselves to pinch points and/or a fall hazard?

Reply (1): Yes. Conformance with this Section includes not only pinch points and/or fall hazard but also additional hazards such as personnel impacting fixed objects, impact to suspended persons by falling objects, and the creation of falling object hazards by the suspended person(s).

Question (2): Would not the use of a properly designed and manufactured suspension harness and V-sling be functionally equivalent, in terms of lifting personnel, and equally safe since no fall hazard would exist and no pinch points would exist?

Reply (2): No. While the harness and V-sling suspension may address some of the hazards of suspending personnel they do not address all the hazards and so do not satisfy the requirements of the Section.

Interpretation: 5-46

Subject: ASME B30.5-1989

Date: September 22, 1994

Question: Section 5-2.1.2(c) states, "all safety devices for malfunction." Please provide a more detailed description of "safety devices."

Reply: The B30.5 volume does not provide a description for "safety devices." The Committee feels that the characterization and description of components on the crane is the responsibility of the crane and component manufacturers. The volume only establishes the inspection requirement for such devices.

Interpretation: 5-47

Date Issued: March 22, 1994

Subject: ASME B30.5-1989, Mobile and Locomotive Cranes (ASME/ANSI B30.5-1989)

Question (1): Is it a requirement for B30.5 cranes to proof test a replacement pendant?

Reply (1): No.

Question (2): Should the B30 Committee be considering this as a requirement for pendant replacements on B30.5 booms and similar boom equipment described in other B30 volumes when booms are supported by socketed wire rope pendant assemblies?

Reply (2): Your proposal will be passed on to the B30.5 Subcommittee for consideration and possible inclusion in a future addenda. This subject will also be reviewed by other B30 Subcommittees to determine if their equipment have, or utilize, boom pendants. If they do, each Subcommittee will address the issue in a future addenda.

Question (3): If proof testing is required, will the B30 Committee consider referencing ASTM A370, Standard Methods and Definitions for Mechanical Testing of Steel Products, thus ensuring the accuracy of a proof test?

Reply (3): Neither B30.5 nor B30.9 addresses the subject of ensuring the accuracy of proof testing. Specifying how the proof testing is to be performed, or under what conditions, including calibration, is beyond the scope of the B30 Standard.

Interpretation: 5-48

Date Issued: March 17, 1995

Subject: ASME B30.5-1989, Mobile and Locomotive Cranes (ASME/ANSI B30.5-1989)

Question (1): Is the "load" to which para. 5-3.2.1.3(a) refers the same as "load (working)," as defined in Section 5-0.2?

Reply (1): No.

Question (2): If not, is the "load" to which para. 5-3.2.1.3(a) refers the payload, excluding the weight of load-attaching equipment such as spreader bars and slings?

Reply (2): No. The intent of this Section is to make sure that any suspended load that has the potential to be, or to create, a safety hazard in the work area is under continuous control. Spreader bars and slings may in some sizes and work environments be just as, or more, hazardous than the "payload" they are lifting. Qualified individuals should consider all the load elements listed in the definition of a "load (working)," including the "payload," and make a determination of the potential hazards and verify the necessity, or lack of necessity, of having an operator at the controls.

Interpretation: 5-49

Date Issued: June 20, 1995

Subject: ASME B30.5-1994, Mobile and Locomotive Cranes

Question: In para. 5-1.9.3(c), does the statement, "Each power-operated outrigger shall be visible from its actuating location..." include outrigger controls located in a commercial truck cab with the outrigger visible only in a rearview mirror?

Reply: Yes. If a crane has the cab located on a rotating upperstructure, the cab can be positioned to provide visibility to all outriggers. Where the cab is located on the lower portion of the crane, such as a commercial truck, this is not possible. If the outriggers are not visible from the actuation position, the operator shall be assisted by a signal person. This is addressed in para. 5-1.9.3(c) of the B30.5 volume.

Interpretation: 5-50

Date Issued: June 20, 1995

Subject: ASME B30.5-1989, Mobile and Locomotive Cranes (ASME/ANSI B30.5-1989)

Question (1): In para. 5-3.1.3(e), does leaving the crane mean it is "unattended?"

Reply (1): No. Paragraph 5-3.1.3(e)(7) addresses this question.

Question (2): If an operator were to remove his hands from the controls while still inside the cab in the operator's seat, would the crane be considered "unattended" as addressed by para. 5-3.1.3(e)?

Reply (2): No.

Interpretation: 5-51

Date Issued: June 20, 1995

Subject: ASME B30.5-1989, Mobile and Locomotive Cranes (ASME/ANSI B30.5-1989)

Question (1): If a crane operator were to be seen taking pictures of an unsafe condition with no load on the hook, would this be considered an unsafe act by the operator?

Reply (1): The B30.5 volume has no provision intended to address a crane operator "seen taking pictures" as you describe.

Question (2): In para. 5-3.1.3(a), does the phrase "actually engaged in operating the crane" mean while the crane is making a move or lift?

Reply (2): Yes. However, there are numerous other elements covered by this phrase including, but not limited to, waiting for signals, extending outriggers, swinging and booming, etc.

Interpretation: 5-52

Date Issued: June 20, 1995

Subject: ASME B30.5-1989, Mobile and Locomotive Cranes (ASME/ANSI B30.5-1989)

Question: Does a crawler crane (one equipped with a riprap, grapple, or clamshell bucket) used for picking up armor rock from a stockpile and placing this rock on an existing sea wall come under the scope of ASME/ANSI B30.5-1989 for the purpose of inspection or anything else? This operation involves an operator and machine with no slings, rigging, signalman, or additional crew members.

Reply: Yes, used as you described, the operation and equipment are covered within the scope of ASME B30.5-1989.

Interpretation: 5-53

Date Issued: September 25, 1995

Subject: ASME B30.5-1989, Mobile and Locomotive Cranes (ASME/ANSI B30.5-1989)

Question (1): With regard to para. 5-3.2.2(a)(21), why is ASME B30.5 so restrictive when OSHA is "silent" and the crane manufacturers seem to have higher wind speed cutoffs?

Reply (1): The Committee does not feel it is overly restrictive in limiting wind speed to 15 mph. The wind speed of 15 mph, as stated in para. 5-3.2.2(a)(21), is advisory in nature and is characterized by the use of the word "should." At least two major manufacturers specify wind speeds equal to or less than this value.

Question (2): Where did the Committee find 15 mph?

Reply (2): The value is based on the experience and judgment of the B30 Committee members.

Interpretation: 5-54

Date Issued: December 12, 1995

Subject: ASME B30.5-1994, Mobile and Locomotive Cranes

Question: Does para. 5-1.9.3 require outriggers, stabilizers, and jacks to structurally withstand the forces associated with a tipping condition?

Reply: The structural performance requirements for outriggers are covered in para. 5-1.10 Structural Performance. Paragraph 5-1.1.1(c) also requires that cranes meet the requirements of SAE J765. This test verifies the structural integrity of the outriggers at the point of tipping, as defined in SAE J765.

Interpretation: 5-55

Date Issued: December 12, 1995

Subject: ASME B30.5a-1990, Mobile and Locomotive Cranes

Question (1): In para. 5-2.2.2(a), exactly which part of a crane is considered to be "load sustaining" and which part is not?

Reply (1): Any parts that are subject to stresses resulting from the weight of the machine itself or the application of load (working) are to be considered "load sustaining."

Question (2): Paragraph 5-2.2.2(a) discusses the replacement, alteration, or repair of load sustaining parts.

- (a) What parts of the crane are they specifically referring to?
- (b) What is the definition of "altered, replaced, or repaired" as it pertains to this paragraph?

Reply (2):

- (a) See reply (1).
- (b) The terms "altered," "replaced," and "repaired" are common-usage terms. As used in this paragraph, standard definitions apply.

Question (3): Section 5-0.2 defines a "qualified person."

- (a) What is meant by a "recognized certificate"?
- (b) What would constitute "extensive knowledge"?

Reply (3):

- (a) The definition of a "qualified person" does not include the term "recognized certificate." It covers a certificate of professional standing.
- (b) "Extensive knowledge," as stated in the definition, includes the statement, "has successfully demonstrated the ability to solve or resolve problems related to the subject matter and work."

Interpretation: 5-56

Subject: ASME B30.5-1994, Mobile And Locomotive Cranes, Including ASME B30.5a-1995

Date Issued: June 14, 1996

Question: Can I assume, for an individual to meet the crane operator qualifications of ASME B30.5a-1995, among other requirements, the person must satisfactorily complete the field proficiency test as described in para. 5-3.1.2(b)(5) on each specific type of crane (Figs. 1 through 10 on pages 6, 7, and 8 of ASME B30.5-1994) for which they are qualifying?

Reply: Yes.

Interpretation: 5-57

Subject: ASME B30.5-1994, Mobile and Locomotive Cranes

Date Issued: October 18, 1996

Question: If a forklift is being used as a crane, does it have to meet the requirements of ASME B30.5-1994?

Reply: The forklift, which has been converted, falls under the scope of the ASME B56 Main Committee on Powered and Nonpowered Industrial Trucks. When such equipment is converted to a crane, it falls within the scope of one of the ASME B56 standards.

Interpretation: 5-58

Subject: ASME B30.5a-1995, Mobile and Locomotive Cranes, Section 5-3.1.2 Qualifications for Operators

Date Issued: December 23, 1996

Question (1): Paragraph 5-3.1.2(b)(5) states that operator requirements shall include "completing an operation test demonstrating proficiency in handling the specific type crane, including both pre-start and post-start inspection, maneuvering skills, shutdown, and securing procedures."

Considering the various types of cranes in general use, such as lattice crawler, lattice truck, hydraulic rough terrain, hydraulic all terrain, hydraulic truck, commercial truck mounted hydraulic crane, rectangular tube heavy lift boom truck, lighter duty long reach round tube boom truck, as well as the size and tonnage differences and limitations of each type, please give specific requirements for practical testing to assure a reasonable competency level for the various equipment listed above.

Reply (1): The specific requirements for practical testing will vary considerably according to the make, model, configuration, and particular application for which the unit is utilized. It is beyond the scope of this Volume to specify the practical testing for each specific use of a crane.

Question (2): Would full setup and complete operation of each type of crane be a necessary requirement of testing?

Reply (2): Yes. Section 5-3.1.2 Qualification for Operators states "operators shall be required to successfully meet the qualifications for the specific type crane (see Figs. 1 through 10) which they are operating." Paragraph 5-3.1.2(b)(5) further states that operator requirements shall include "completing an operations test demonstrating proficiency in handling the specific type crane."

Question (3): Would a demonstration of some operations of an already set up crane, such as swing, load line, or boom up/down meet requirements?

Reply (3): Complete testing should include these items but should not be limited to just these items.

Question (4): Realizing your requirements are required to be utilized by employers and regulatory bodies and that they extend to licensing, please explain your requirements to establish practical testing criteria. If a licensing authority were to require practical testing to obtain certification, could testing be conducted in such a manner that would require many operators to operate equipment different from equipment they normally operate with the premise or criteria being that an operator must be capable of operating any crane within a certain class expertly in order to be considered a competent operator?

Reply (4): This is an option that should be decided by the employer, licensing authority, or regulatory body and is beyond the scope of this Volume.

Question (5): To what performance standards should operators be required to perform; and would a demonstration of high speed, high efficiency repetitive operations, and multiple simultaneous functions be a measure of safety and competence?

Reply (5): Performance standards are at the discretion of the employer, licensing authority, or regulatory body.

Question (6): Would understanding equipment limitations and a demonstration of proper setup and load handling ability on normally operated equipment provide a valid test procedure?

Reply (6): This could be part of the test procedure but should not be limited to just these items.

Question (7): Can certain classifications be established, such as unlimited lattice, unlimited hydraulic, unlimited boom truck over 5 tons, and boom truck under 5 tons?

Reply (7): The B30 Standard is written as a safety standard and is not written to establish licensing or certification procedures. The Introduction section of the B30.5 Volume states:

"This Standard is designed to:

- (a) guard against and minimize injury to workers, and otherwise provide for the protection of life, limb, and property by prescribing safety requirements;
- (b) provide direction to owners, employers, supervisors, and others concerned with, or responsible for, its application; and
- (c) guide governments and other regulatory bodies in the development, promulgation, and enforcement of appropriate safety directives."

Question (8): Should operators be required to certify on specific model and tonnage machines?

Reply (8): See reply (7).

Question (9): If classes were to be established, should operators be required to certify on the largest and most complex machine or would testing on a smaller or more basic machine in the same class be a valid test of competency?

Reply (9): See reply (7).

Question (10): If classes were established, would an operator who certifies on the largest class be allowed to operate cranes of other classes without additional certification?

Reply (10): See reply (7).

Question (11): Would an employer or licensing authority that administers only a general written and operating exam meet your requirements?

Reply (11): No. The B30.5 Volume requires written, oral, practical, and medical examinations.

Interpretation: 5-59

Subject: ASME B30.5-1994, Mobile and Locomotive Cranes

Date Issued: March 7, 1997

Question (1): Working areas on page 16, Fig. 11(d), apply to our situation. As we interpret this diagram, the most stable position is forward over the idler tumbler; the next most stable is over the drive tumbler; and the LEAST STABLE would be to the side with boom perpendicular to the track's long axis. Is this correct?

Reply (1): No. Figure 11(d) defines work areas for a crawler type mobile crane. The diagram does not address least or most stable directions. Paragraph 5-1.1.3(b)(4) requires that the manufacturer indicate the least stable direction either in the rating chart notes or in the operator's manual.

Question (2): Is the Load Rating Chart supposed to be designed for this side position and shown at the 75% reduction of the maximum calculated load?

Reply (2): Load Rating Charts are prepared by the manufacturer following Section 5-1.1.3 guidelines and using the stability stipulations of Section 5-1.1.1. When stability governs lifting performance, ratings for crawler mounted cranes do not exceed 75% of the tipping load as determined by test per SAE J765.

Question (3): If a crane has been leveled within the 1% requirement by manipulating the tracks until level has been achieved, would it meet the requirement of para. 5-1.2.2(e) even though the pad does not fall within the 1%?

Reply (3): The paragraph cited, 5-1.2.2(e), refers to conditions applicable to the manufacturer's verification of backward stability. Levelness of crane supports at the worksite is covered in Section 5-3.4.6.

Interpretation: 5-60

Subject: ASME B30.5-1994, Mobile and Locomotive Cranes

Date Issued: March 7, 1997

Question: Paragraph 5-1.8.1(e) states "a seat belt shall be provided in all single control station wheel mounted cranes for use during transit and travel."

According to para. 5-1.8.1(e), it is my understanding that a seat belt is not required while operating a rough terrain crane and that the seat belt reference is applicable only to times when the crane is being driven from location to location.

Reply: Yes, your interpretation is correct. Definition for both transit and travel can be found in B30.5-1994, Chapter 5-0, Section 5-0.2.2.

Interpretation: 5-61

Subject: ASME B30.5a-1995, Mobile and Locomotive Cranes

Date Issued: July 15, 1997

Question: Paragraph 5-3.1.2(b)(3) states, "Operators shall demonstrate their ability to read, write, comprehend, and exhibit arithmetic skills and load/capacity chart usage, in the language of the crane manufacturer's operation and maintenance instruction materials."

Does the use of a computer, calculator, or other device satisfy the requirement to "exhibit arithmetic skills"?

Reply: No.

Interpretation: 5-62

Subject: ASME B30.5-1994, Mobile and Locomotive Cranes

Date Issued: October 3, 1997

Question: Does the scope of the B30.5 volume cover cranes that have been placed into pile driving service through the attachment of box leads to the boom via an engineered attachment piece?

Reply: The third paragraph of Section 5-0.1, Scope, states, "Some basic machine types within this scope are convertible for excavating work and other uses not considered to be lifting service. **The requirements of this volume are applicable only to such machines when used as lifting cranes.**" (Emphasis has been added.)

Therefore, the crane, while it is equipped and used as you described, would not be covered by the B30.5 volume.

Interpretation: 5-63

Subject: ASME B30.5b-1996, Mobile and Locomotive Cranes

Date Issued: December 23, 1997

Question (1): Refer to Fig. 17(b) in ASME B30.5(a)-1995. Please consider the situation where the crane is operating away from or parallel to power lines, such that the erected/fully extended boom will not lower into the prohibited zone nor into the area above or below the prohibited zone. Refer to Fig. 5-63. Does the crane orientation shown meet the condition specified under para. 5-3.4.5.1(b) since the boom could not be mistakenly rotated into the prohibited zone?

Reply (1): Yes.

Question (2): If the reply to question 1 is yes, do the requirements of para. 5-3.4.5.3(d) apply if administrative controls are exercised to prevent rotation into the prohibited zone? Administrative control examples: flags along a line defining limits of the work area, combined with regular meetings with the crane operator and rigging crew to review the work area and power line location.

Reply (2): Yes.

Question (3): If the reply to question 1 is yes, do the requirements of para. 5-3.4.5.3(d) apply if physical control is exercised to prevent rotation into the prohibited zone? Physical control examples: swing rotation limit switch that alarms and sets the swing brake, or a swing limit switch combined with a final positive dog on the ring gear.

Reply (3): No. If there is a physical means that prevents any part of the crane or load from entering the prohibited zone, then para. 5-3.4.5.3(d) does not apply.

Question (4): If administrative or physical controls are acceptable in lieu of a full-time "wire watcher," does the B30 Committee have minimum requirements for such controls?

Reply (4): No.

Interpretation: 5-64

Subject: ASME B30.5-1994, Section 5-3.2.2(a)(11)

Date Issued: June 11, 1999

Question: Paragraph 5-3.2.2(a)(11) states, "Personnel being lifted or supported shall wear safety belts with lanyards attached to designated anchor points." Should anchor points be on the lifting platform or at some point above the hook?

Reply: Section 5-3.2.2, Personnel Lifting, does not specifically address the location of anchor points.

Interpretation: 5-65

Subject: ASME B30.5-1968

Date Issued: June 11, 1999

Question: Who is responsible for retrofitting a crane manufactured in 1967?

Reply: B30.5-1968 Section IV, New and Old Cranes, does not address the question of who is responsible for such retrofitting as may be necessary.

Interpretation: 5-66 (Reconsideration of Interpretation 5-14)

Subject: ASME B30.5-1968

Date Issued: June 11, 1999

Question (1): Is the roof of a cab considered to be an outside platform as referred to in para. 5-1.8.2, or is the intent only to describe platforms on essentially the same level as the floor of the operator's area?

Reply (1): No.

Question (2): With regard to the roof surface of the cab, does Section 5-1.8 establish, for the roof of an operator's cab on a truck crane, any requirements other than those spelled out in para. 5-1.8.4?

Reply (2): No.

Interpretation: 5-67

Subject: ASME B30.5-1994, Section 5-1.10

Date Issued: October 4, 2000

Question (1): What cranes fall into the category of "non-production" cranes?

Reply (1): To qualify as a non-production crane, the crane in question must:

- (a) Be of a unique design configuration, specific to the requirements of a singular site; and
- (b) Only be used within the confines and control of that site.

Cranes of any configuration, however unique, used or intended for general purpose lifting work at multiple sites do not meet the requirements of a non-production crane.

Question (2): Even if a specially designed crane, or one built for a specific lift, is used for other purposes and on other jobs, or can be replicated for limited production, is it still considered a non-production crane for the purposes of this Standard?

Reply (2): No.

Question (3): How would a crane manufacturer or qualified person verify or determine the ability of a crane to meet the performance requirements of the standard?

Reply (3): In the case of production models of cranes, it is the intent of the standard that testing be carried out by a qualified person in accordance with SAE J987 or SAE J1063 to verify this requirement. In the case of non-production cranes, it is the intent of the standard that calculations predict the crane's performance with regard to the criteria specified in SAE J987 or SAE J1063.

Interpretation: 5-68

Subject: ASME B30.5-2000, Section 5-3.1.3(d)

Date Issued: January 19, 2001

Question (1): If a signalman is being used, is the location where the load is to be placed "under the operator's direct control"?

Reply (1): No. While the movement of the load may be "under the operator's direct control," the operator may be directed by a signal person, who has been given authority to direct the placement of the load. The operator should verify that the load can be handled safely by the crane.

Question (2): What is the basis to be used by the crane operator in determining if a location for a load to be placed is safe (e.g., training, experience, industry practice)? Specifically, if an operator has not been shown the erection drawings and is directed by the erection crew signal person to place a load in place, is there any reason he should be expected to "have any doubt as to safety"?

Reply (2): No. While the movement of the load may be "under the operator's direct control," the operator may be directed by a signal person, who has been given the authority to direct the placement of the load.

Interpretation: 5-69

Subject: ASME B30.5-1994, Section 5-3.2.1.4(k)

Date Issued: January 19, 2001

Question: For lifting operations involving two or more cranes used to lift one object, could the B30 Committee suggest or recommend an applicable de-rating factor, which would be applied to the crane load rating charts?

Reply: No. The B30 Committee cannot recommend a specific de-rating factor, which can be applied to crane load rating charts when lifting operations involve two or more cranes used to lift one object.

Interpretation: 5-70

Subject: ASME B30.5-2000, Section 5-1.9.10

Date Issued: June 6, 2001

Question: The subject section states, "All new cranes with a maximum rated load capacity of 3 tons or more should have load indicators." Load indicators on many cranes only display a reading for the main load block even when equipped with an auxiliary winch or jib. Is it the intent of the B30 Committee that load indicators display a reading that is accurate and reliable over their full range, in all crane configurations, and for all types of lifts?

Reply: The intent of the B30 Committee is that "all new cranes with a maximum rated load capacity of 3 tons or more should have load indicators." These indicators shall be accurate and reliable (within the manufacturer's specified tolerances) in all hoisting configurations, as specified by the manufacturer.

Interpretation: 5-71

Subject: ASME B30.5-1994, para. 5-2.4.3(b)(5)

Date Issued: January 28, 2002

Question: Does para. 5-2.4.3(b)(5), pertaining to "evidence of heat damage from any cause" apply to the end of the rope after it passes through the wedge socket (as in flame cutting and welding)?

Reply: No.

Interpretation: 5-72

Subject: ASME B30.5-2000 and B30.5a-2002, New and Existing Installations

Date Issued: November 1, 2002

Question: Would a crane that was manufactured prior to the effective date (March 29, 2003) without meeting the provisions of para. 5-1.9.9.2 and purchased or operated after the effective date be in compliance with ASME B30.5a-2002?

Reply: Yes.

Interpretation: 5-73

Subject: ASME B30.5-2000, para. 5-3.1.2, Qualification of Operators

Date Issued: January 31, 2003

Question: Does B30.5 prohibit a person with monocular vision from operating a crane?

Reply: Paragraph 5-3.1.2(a) includes the phrase, "unless it can be shown that failure to meet the qualification will not affect the operation of the crane." Hence, if it can be demonstrated that an individual can safely operate a crane, then this requirement of the volume has been satisfied.

Interpretation: 5-74

Subject: ASME B30.5-2000, para. 5-1.2.1, Backward Stability

Date Issued: January 31, 2003

Question (1): Would a crane that loses its load, unexpectedly coming unloaded, still be required to have the proper backward stability in accordance with para. 5-1.2.1?

Reply (1): The backward stability conditions only apply prior to a load being lifted.

Question (2): Is a crane losing its load beyond the constraints of this volume?

Reply (2): Yes.

Interpretation: 5-75

Subject: ASME B30.5-2000, para. 5-3.1.2(b)(3); Reconsideration of ASME B30 Interpretation 5-61

Date Issued: September 12, 2003

The B30 Committee reaffirms Interpretation 5-61.

Interpretation: 5-76

Subject: ASME B30.5-2000, Para. 5-3.1.2(b)(5), Operator Testing

Date Issued: October 12, 2004

Question: Reference para. 5-3.1.2(b)(5). Does the operator being tested need to successfully complete an operations test on any one crane in any of the groupings (1 through 10) to qualify him/her to operate any crane in that particular grouping, or must they demonstrate proficiency on every crane (make, model, capacity) to be operated?

Reply: The operator only needs to complete an operation test on a specific type crane. The operator does not need to complete an operation test on each specific crane.

Interpretation: 5-77

Subject: ASME B30.5a-2002, Fig. 17, Hand Signals

Date Issued: October 12, 2004

Question: In which direction is the thumb pointing in the Extend Boom (Telescoping Boom) One Hand Signal?

Reply: The thumb is pointed upward toward the chin, while tapping the chest in a manner clearly visible to the operator.

Interpretation: 5-78

Subject: ASME B30.5-2004, Para. 5-3.2.1.3, Attaching the Load

Date Issued: June 22, 2005

Question: Is attaching the load to the rope using a shackle to secure a sling above the ball and also above the hook prohibited?

Reply: Yes.

Interpretation: 5-79

Subject: ASME B30.5-2004, Para. 5-3.1.2(b)(5), Operator Testing

Date Issued: June 22, 2005

Question (1): Does maneuvering include traveling/steering?

Reply (1): Yes.

Question (2): As a contractor we may hire an operator to operate a specific crane type, set up in a ring configuration, where travel is not possible without major disassembly. Can the operator be qualified to operate without traveling/steering the crane?

Reply (2): Yes, where the crane location or configuration does not permit traveling/steering.

Question (3): Can a certifying agency grant certification of an operator who has otherwise passed all the written and practical exams if he/she has not traveled and steered the crane?

Reply (3): ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity (see Introduction, Section IX, Request for Interpretation).

Interpretation: 5-80

Subject: ASME B30.5-2004, Para. 5-3.3.3, Signalperson Qualifications

Date Issued: September 26, 2005

Question (1): Does ASME B30.5-2004 define the specific training and testing requirements for "basic understanding of crane operations and limitations" to determine the qualifications necessary for a signalperson?

Reply (1): No.

Question (2): Does ASME B30.5-2004 require the signalperson to know load chart interpretations?

Reply (2): No.

Question (3): What do you mean by basic function and limitation?

Reply (3): Basic crane operations and limitations are addressed throughout ASME B30.5-2004.

Interpretation: 5-81

Subject: ASME B30.5-2004, Para. 5-2.2.2, Rated Load Test

Date Issued: September 26, 2005

Question (1): Does "altered" pertain to removal and installation of manufacturer specified boom sections?

Reply (1): No.

Question (2): How often does a crawler crane need to be load tested?

Reply (2): There is no requirement in B30.5 for a periodic load test on a crawler crane.

Interpretation: 5-82

Subject: ASME B30.5-2004, Section 5-0.1, Scope

Date Issued: May 22, 2006

Background: There is a school of thought that the existence of physical characteristics in a "Types of Mobile Cranes" definition (Section 5-0.2, Definitions) restricts/precludes a crane without that physical characteristic from being included within the Scope of B30.5 (Section 5-0.1). Specifically, in the definitions of "wheel-mounted crane (multiple control stations)" and "wheel-mounted crane (single control station)," and in all B30.5 volumes from 1982 to the current volume, the phrase "station(s) for driving and operating" is present.

The crane in consideration is "wheel-mounted" but is designed to be "towed" to jobsites so it does not have a "station for driving." When all of the types of mobile and locomotive cranes presented in the volumes are considered, the mobile crane configuration closest to the crane in consideration is the "wheel-mounted" type but it has no "driving station."

Question (1): Does NOT having a "station for driving and operating" on a crane that is mounted on wheels and designed to be towed to a jobsite preclude that crane from being designed by the manufacturer to be within the Scope of the B30.5 volume, as defined in Section 5-0.1?

Reply (1): No. Section 5-0.1 states, "...American National Standard B30.5 applies to crawler cranes, locomotive cranes, wheel-mounted cranes, and any variations thereof that retain the same fundamental characteristics."

Question (2): Do cranes meeting the requirements of the B30.5 Scope, Section 5-0.1, also have to completely meet one of the published "Types of Mobile and Locomotive Cranes" definitions found in Section 5-0.2, Definitions, to be considered a B30.5 Mobile Crane?

Reply (2): No. Section 5-0.1 states, "Special adaptations to the general types of machines covered by this volume, where applicable, fall under this scope."

Interpretation: 5-83

Subject: ASME B30.5-2004, Section 5-0.1, Scope

Date Issued: January 31, 2007

Question (1): Are Mobile Self-Erector Tower Cranes included in the Scope, Section 5-0.1 of the ASME B30.5-2004?

Reply (1): The ASME B30 Standards Committee does not endorse products nor determine if a specific piece of equipment falls within a specific B30 volume. The manufacturer must determine which volume is applicable based on the design of the crane and the criteria included in the scope.

The scopes of the B30 Standard and the individual B30 volumes establish the characteristics to be considered by the manufacturer when deciding the applicability of the B30 Standard and a volume to any particular lifting system.

Question (2): Are Mobile Self-Erector Tower Cranes included in the Definitions, Section 5-0.2 of ASME B30.5-2004?

Reply (2): No. None of the B30 Standard volumes define or use the equipment description/title of "Mobile Self-Erector Tower Cranes."

Interpretation: 5-84

Subject: ASME B30.5-2007, Para. 5-3.1.3.3.1(x)

Date Issued: February 18, 2009

Question: When is it acceptable for an operator to leave a crane unattended with the engine running?

Reply: Refer to para. 5-3.1.3.3.1(x)(5).

Interpretation: 5-85

Subject: ASME B30.5-2007, Para. 5-3.4.5.4, Crane Operations Within the Prohibited Zone With the Electric Power Lines Energized

Date Issued: February 18, 2009

Question (1): Do all boom lengths apply to para. 5-3.4.5.4?

Reply (1): Yes.

Question (2): In reference to para. 5-3.4.5.4(g), does an operator have to maintain the minimum required clearances from an energized power line as established in Table 2 if an insulated barrier is installed on the power line and an insulating link is installed on the crane?

Reply (2): Yes.

Interpretation: 5-86

Subject: ASME B30.5-2004, Para. 5-2.1.3, Periodic Inspection

Date Issued: February 18, 2009

Background: Paragraph 5-2.1.3 states that, "Complete inspection of the crane shall be performed by a qualified person at intervals as generally defined in para. 5-2.1.1(b)(2), depending on the crane's activity, severity of service, and environment, or as specifically indicated below."

Question (1): Can someone within the equipment owner's company determine who is qualified to perform an inspection?

Reply (1): Yes.

Question (2): Should a third party (someone outside the equipment owner's company) determine who is qualified to perform an inspection?

Reply (2): B30.5 does not require a third party to determine who is qualified to perform an inspection. The Volume only requires that the person performing a periodic inspection meets the definition of a "Qualified Person."



Interpretation: 5-87

Subject: ASME B30.5-2007, Para. 5-3.4.6, Footing

Date Issued: February 18, 2009

Question (1): Is there a specific standard requiring cribbing to be used on dirt set-ups?

Reply (1): ASME B30.5 does not cover cribbing requirements for specific ground conditions.

Question (2): Does para. 5-3.4.6, Footings, mean the operator must verify the allowable soil bearing capacity prior to setting up the crane and use their own judgment regarding cribbing?

Reply (2): No, the operator's responsibilities are addressed in para. 5-3.1.3.3.

Interpretation: 5-88

Subject: ASME B30.5-2007, Paras. 5-3.1.2(a)(6), 5-3.1.3, and 5-3.1.3.2

Date Issued: June 29, 2009

Question (1): In para. 5-3.1.2(a)(6), does the term "level of testing" refer to the frequency that the test is to be performed or to the substances that are being tested for?

Reply (1): In para. 5-3.1.2(a)(6), the "level of testing" refers to the standard practice of the industry or jurisdiction where the crane is employed. The detail of the level of testing is outside of the scope of this Standard.

Question (2): In para. 5-3.1.3.2, are there situations where the lift director and the crane operator may be the same person?

Reply (2): Yes, in para. 5-3.1.3, "a single individual may perform one or more of these roles."

Question (3): In para. 5-3.1.3.2, if there are several cranes and associated rigging crews working on a job site, does the standard require that each crane and associated rigging crew have its own unique lift director?

Reply (3): No.

Interpretation: 5-89

Subject: ASME B30.5-2007, Para. 5-3.1(3)

Date Issued: October 21, 2009

Question: If maintenance personnel (e.g., an electrician) do not operate the crane, do they have to complete all operator trainee qualification requirements?

Reply: No.



Interpretation: 5-90

Subject: ASME B30.5-2007, Paras. 5-1.9.9.1 and 5-1.9.9.2

Date Issued: October 21, 2009

Question: Would a crane that was manufactured prior to February 28, 1992, was never modified, and does not meet the provisions of paras. 5-1.9.9.1 and 5-1.9.9.2 be in compliance with ASME B30.5-2007?

Reply: Cranes must be in compliance with the volume in effect at the time of manufacture. Under the provisions of Section V(b), the need to retrofit to the current volume shall be determined by a qualified person selected by the Owner (User) when an item is being modified.

Interpretation: 5-91

Subject: ASME B30.5-2007, Para. 5-1.9.11(c) and Section 5-0.1

Date Issued: October 22, 2009

Question (1): Paragraph 5-1.9.11(c) refers to para. 5-3.3.4, which covers hand signals only and not audible signal devices. Is this correct or should it reference another section?

Reply (1): The Subcommittee thanks you; the reference is incorrect.

Question (2): Section 5-0.1 states that cranes that are "1 ton or less are excluded." Since we also design and manufacture truck-mounted cranes over 1 ton with a boom extension of no more than 30 ft, all of which are not operated from inside a cab but from ground level and pendant or remote operated, should these cranes have an audible device, or are hand signals sufficient?

Reply (2): An audible device is required per para. 5-1.9.11(c).

Interpretation: 5-92

Subject: ASME B30.5-2007, Paras. 5-1.1.3, 5-1.7.1, 5-2.2.2, and 5-3.2.1

Date Issued: January 28, 2010

Question (1): Will a temporary allowance to operate a crane above the stated crane rating chart be within the guidelines of paras. 5-1.1.3, 5-1.7.1, 5-2.2.2, and 5-3.2.1?

Reply (1): No, per para. 5-3.2.1.1(a), no crane shall be loaded beyond the specifications of the load rating chart, except for test purposes as provided in Section 5-2.2.

Question (2): Will an allowance to operate a crane above the stated crane rating require that the crane be rated to a higher level?

Reply (2): Yes, if approved by the manufacturer or a qualified person.

Question (3): Is para. 5-3.3.2 required for mechanics' crane service truck applications?

Reply (3): Yes, for cranes rated greater than 1 ton.

Interpretation: 5-93

Subject: ASME B30.5-2007, Para. 5-3.1.2(b)(3)

Date Issued: October 12, 2010

Question: Is it acceptable for crane operators to use a calculator while taking a written exam (demonstrating the ability to read, write, comprehend, and use arithmetic, etc.) under para. 5-3.1.2(b)(3)?

Reply: The Committee reaffirms the previous Interpretations 5-61 and 5-75.



Interpretation: 5-94

Subject: ASME B30.5-2007, Section 5-1.9, Para. 5-1.9.11(c), Miscellaneous Equipment; Section 5-3.3, Para. 5-3.3.7, Audible Travel Signals

Date Issued: February 1, 2011

Question: Is the need for the audible signal device in para. 5-1.9.11(c) only required when the vehicle is moving as indicated in para. 5-3.3.7?

Reply: No, the B30.5 requirement for an audible signal device is not limited to situations of vehicle travel (see para. 5-3.3.8).

Interpretation: 5-95

Subject: ASME B30.5-2007, Section V(b)

Date Issued: February 1, 2011

Question: If the boom of a locomotive crane is removed and the equipment is only used to move rail cars, does the equipment have to be evaluated by a qualified person?

Reply: No, once the boom is removed, the machine no longer falls within the scope of B30.5.



Interpretation: 5-96

Subject: ASME B30.5-2007, Para. 5-3.1.2(b)(3)

Date Issued: May 27, 2011

Question: Does the B30.5 committee believe that the use of calculators is inappropriate?

Reply: Paragraph 5-3.1.2(b)(3) does not specify what tools are to be used to demonstrate the ability to read, write, comprehend, and use arithmetic and a load capacity chart.

Interpretation: 5-97

Subject: ASME B30.5-2007, Para. 5-3.4.5.1 and ASME B30.22-2005, Para. 22-3.3.1

Date Issued: June 3, 2011

Background: The ASME B30.22-2010 update to this Volume contains requirements and terminology that are identical to B30.5-2007. Both Volumes apply to overhead electric power lines, regardless of whether they are used for transmission, distribution, or other purposes. Both Volumes apply to manufactured insulated conductors and conductors with temporary insulating material. Neither Volume addresses conductors that are encased in conduit or raceways.

Question (1): Does the phrase "coverings of wires" include both manufactured insulated cable and temporary insulating material?

Reply (1): The Volume does not draw any distinction between manufactured insulated cable and temporary insulating material. Paragraph 5-3.4.5.1 states "Crane operators shall not rely on the coverings of wires for their protection."

Question (2): If so, is it a requirement of B30.5-2007 that cranes must maintain the clearances of Table 2 when operating or transiting near insulated energized power lines?

Reply (2): Yes, unless there is compliance with B30.5-2007, para. 5-3.4.5.4.

Question (3): Does the word "coverings" (above) include conduit or other raceways that are encasing one or more energized power lines?

Reply (3): B30.5-2007 does not address wires encased in conduit or raceways.

Question (4): All four illustrations in Figure 18 of Reference (a) refer to Table 1. Should these references be to Table 2?

Reply (4): Yes. This was corrected in a previous ballot and will be in the next publication of the Volume.



Interpretation: 5-98

Subject: ASME B30.5-2004, Paras. 5-3.1.3(c) and 5-3.1.3(d), ASME B30.5-2007, Paras. 5-3.1.3.2.1(d), 5-3.1.3.2.2(b), and 5-3.1.3.3

Date Issued: January 31, 2012

Question (1): ASME B30.5-2004 (Revision of ASME B30.5-2000), para. 5-3.1.3(c) provides that the crane operator “shall respond to signals from an appointed signal person.” Does this mean a crane operator may conclude there are no safety concerns with respect to the activities of subcontractors in the crane operator’s blind area while the crane is in operation?

Reply (1): The cited paragraph requires the operator to respond to the appointed signal person. The signal person’s responsibility is to direct the operator to move the load safely.

Question (2): ASME B30.5-2004 (Revision of ASME B30.5-2000), para. 5-3.1.3(d) provides that whenever there is any doubt as to safety, the operator shall consult with the supervisor before handling the loads. Is the “doubt as to safety” referenced in the standard meant to extend to concerns that employees of another subcontractor engaged in disconnecting the load from the crane are not wearing fall protection?

Reply (2): The operator is not responsible for hazards or conditions that are not under his direct control. This Volume does not address fall protection requirements.

Question (3): ASME B30.5-2007 (Revision of ASME B30.5-2004), para. 5-3.1.3.2.1(d) provides that a Site Supervisor’s responsibilities include “ensuring that crane operations are coordinated with other jobsite activities that will be affected by or will affect lift operations.” Where a crane is engaged in hoisting roof trusses does this mean the Site Supervisor, as opposed to the crane operator, is responsible for formulating a plan to land the trusses so they are secured and stabilized before the trusses are disconnected from the crane?

Reply (3): This Volume does not address formulating a plan to land the trusses so they are secured and stabilized before the truss is disconnected from the crane.

Question (4): ASME B30.5-2007 (Revision of ASME B30.5-2004), para. 5-3.1.3.2.2(b) provides that a Lift Director’s responsibilities include “stopping crane operations if alerted to an unsafe condition affecting those operations.” Does this unsafe condition include situations where subcontractors involved in disconnecting loads from the crane are not wearing fall protection?

Reply (4): The Volume does not detail the “unsafe conditions” that could cause the lift director to stop crane operations. This Volume does not address fall protection requirements.

Question (5): Do crane operator’s responsibilities under ASME B30.5-2007 (Revision of ASME B30.5-2004), para. 5-3.1.3.3 include verifying whether employees of another subcontractor in a blind area engaged in disconnecting load from the crane are wearing fall protection?

Reply (5): No.



Interpretation: 5-99

Subject: ASME B30.5-2007, Para. 5-3.1.3, Responsibilities; Para. 5-3.1.3.2, Responsibilities of Site Supervisor and Lift Director; Para. 5-3.1.3.3, Responsibilities of Crane Operators; Para. 5-3.2.1.1, Size of Load

Date Issued: October 10, 2012

Question (1): Does para. 5-3.1.3.1 require that the owner of a crane supply a qualified rigger for the crane's lifting operations?

Reply (1): No.

Background: Subparagraph (l), informing the crane operator of the weight of loads to be lifted, as well as the lifting, moving, and placing locations for these loads.

Question (2): Does para. 5-3.1.3.2.2(l) mean that a crane operator is allowed to accept as accurate the load weight information provided to him by the site supervisor, provided there is no other information (visible/written/historic) to create a doubt as to the provided load weight's accuracy, and to initiate the actions outlined in para. 5-3.1.3.3?

Reply (2): Yes.

Background:

(a) Subparagraph (n), ensuring that a crane's load rigging is performed by designated personnel as defined in para. 5-0.2.2.

(b) Subparagraph (o), ensuring that the load is properly rigged and balanced before it is lifted more than a few inches.

Question (3): Do paras. 5-3.1.3.2.2(n) and (o) mean that, for lifts where a crane operator has neither physical access to a load's rigging-location nor visibility of the actions taken in attaching the rigging to a load, the crane operator is not the person at the site intended to accomplish these responsibilities?

Reply (3): Yes, paras. 5-3.1.3.2.2(n) and (o) fall within the role of the Lift Director.

Question (4): Does the statement "The crane operator shall not be responsible for hazards or conditions that are not under his direct control and that adversely affect the lift operation" mean that a crane operator is not responsible for the improper rigging of a load, which is out of the operator's view, accomplished by qualified riggers?

Reply (4): Yes; see para. 5-3.1.3.3.1(v).

Background: Subparagraph (r), ensuring that the load and rigging weight(s) have been provided.

Question (5): What does the word "ensure" mean in para. 5-3.1.3.3.1(r), in terms of the "actions" to be taken by a crane operator, in order for the operator to be considered as having met the requirements of this paragraph?

Reply (5): See para. 5-0.2.2; "ensure: term used when the meaning 'take steps to see that' or 'make sure' is intended."



Background: Subparagraph (c), when loads that are not accurately known are to be lifted, the designated person responsible for supervising the lifting operations shall ascertain that the weight of the load does not exceed the crane ratings at the maximum radius at which the load is to be handled.

Question (6): Does para. 5-3.2.1.1(c) mean that if a crane operator is provided the weight of the load by the site supervisor and the crane operator sets the crane up so that the provided load weight and rigging is 66% of the crane's capacity at the maximum radius at which the load is to be handled, the requirements of this paragraph are met?

Reply (6): When the weight of the load to be handled has been determined by the person responsible for supervising the lifting operations and the weight is determined to be within the cranes' rated capacity, para. 5-3.2.1.1(c) has been met.



Interpretation: 5-100

Subject: ASME B30.5-2011, Paras. 5-1.7.3(b) and (d)

Date Issued: February 15, 2013

Question: Does ASME B30.5-2011 address the requirement as to when wire rope clips shall be used?

Reply: The use of wire rope clips is not mandated in ASME B30.5-2011.

Interpretation: 5-101

Subject: ASME B30.5-2011, Para. 5-1.3.1(c), Boom Hoist Mechanisms

Date Issued: May 31, 2013

Question (1): In a closed looped hydraulic system, is the hydrostatic system considered a braking device?

Reply (1): Yes, if the system was designed as a braking device and meets the requirements of a brake in para. 5-0.2.2.

Question (2): In an open loop hydraulic system, is the counterbalance valve considered a braking device?

Reply (2): Yes, if the system was designed as a braking device and meets the requirements of a brake in para. 5-0.2.2.

Question (3): Assuming the counterbalance valve fits the definition of a primary braking device, would a spring-applied, hydraulic pressure release brake fit the definition of a locking device; would a boom hoist system with a counterbalance valve and a spring-applied, pressure release brake comply with para. 5-1.3.1(c)?

Reply (3): No, a brake does not meet the requirement for a locking device as specified in para. 5-1.3.1(c).

