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ADVISORY COMMITTEE #1 MINUTES
Proposal to Recombine Construction Safety Orders, Article 15
(Cranes and Derricks in Construction), into
General Industry Safety Orders Group 13
(Cranes and Other Hoisting Equipment).

September 9-10, 2014
Sacramento, CA

Tuesday, September 9, 2014 (First Day).

1. Opening remarks.

The meeting was called to order by Chairman, Conrad Tolson, Senior Engineer, Occupational Safety and Health Standards Board (OSHSB), at 9:35 am. The Chairman was assisted by Bernie Osburn, Staff Services Analyst, OSHSB. The meeting opened with self-introductions by those in attendance, including members and interested parties.

2. Background of the proposed rulemaking.

The Chairman reviewed the Standards Board policy regarding the use of advisory committee meetings; i.e. they are informal and advisory in nature. The Board will use consensus recommendations to develop a reasonable and effective proposal; however, it may be necessary later in the rulemaking process to amend, modify or reject these recommendations, due to the review process. Furthermore, California must be at least as effective as federal standards.

Chair briefly reviewed the background of the proposal. Prior to July 7, 2011, all Title 8 crane standards were horizontal and resided in the GISO; however, a federal negotiated rulemaking (CDAC) in 2010, promulgated standards in 29 CFR 1926 specific for cranes and derricks in construction. The Board originally proposed to combine provisions of the CDAC into the GISO using an expedited (Horcher) rulemaking process; however, general industry stakeholders were concerned that the proposed inclusion of the new federal construction standards into the GISO could "over-reach" and apply to general industry. This was not permitted by the Horcher rulemaking process. Thus the federal CDAC was placed in the CSO.

Since that time, the Board has received input from stakeholders (both management and labor) that it would make sense to recombine all the crane safety orders back into the GISO to provide "one stop shopping." The logic being that a crane, particularly a mobile crane, can work on construction and general industry-type projects sometimes in the same day.

The intent of staff's proposal is to avoid "over-reach;" however, it is possible that the consolidation could unintentionally apply construction provisions to general industry, therefore the Board is seeking

committee members' expertise to assure proper application of the federal construction standards while maintaining existing state standards where more protective.

3. Determination of necessity for the rulemaking.

In response to a question, the chair clarified that this rulemaking was not prompted by any federal challenge to the existing crane standards and that the proposal to reconsolidate was only the result of stakeholder requests and Board direction. No one spoke in opposition to the proposal, and the consensus was to move forward.

4. Section-by-section review.

***Section 3207**, definition of "Competent Person."* This is exactly the same as the definition in CSO 1504 and the term is used in the crane safety orders. By being located in section 3207, it will apply wherever it appears in the GISO. There was no objection.

***Section 4885**, Definitions.*
There were no comments on proposed definitions/modifications of the following:
A/D director (Assembly/Disassembly director).
Articulating Boom Crane.
Assembly/Disassembly.
Assist crane.
Attachment.

Audible signal. There was discussion whether this definition would include devices that can be placed in one's ear (e.g. Bluetooth). Neither the Chair nor Division felt this definition would include Bluetooth devices. It was also noted that this definition is exactly the same as currently found in section 1610.3. Consensus was to leave the definition as currently proposed.

There were no comments on proposed definitions/modifications of the following:
Blocking (also referred to as ''cribbing'')
Boatswain's chair.
Boom (tower cranes).

Boom hoist limiting device. There was discussion on the last sentence of the definition: "It also sets brakes or closes valves to prevent the boom from lowering after power is disengaged." Closson felt this could be interpreted to be a mandatory requirement. Bland suggested modifying to read:
"It <u>may</u> also set brakes or close valves to prevent the boom from lowering after power is disengaged. "
There was agreement.

Boom length indicator. No comments.

Boomstop. Written comments had been received from Closson on this. It recommended adding "structural component": so that the definition would read: A <u>structural component</u> ~~device~~ used to limit the angle of the boom at the highest position.
Closson also recommended deleting the second sentence because the examples could be viewed as limiting just to those particular items. Bland recommended modifying the second sentence with "includes but is not limited to…" There was further discussion about changing to "<u>engineered</u> structural

component", but in the end the committee decided to stay with "structural component" for a number of reasons. The consensus was for the second sentence to read:
"Includes but is not limited to structural components such as ~~boom stops,~~ belly straps with struts/standoff, telescoping boom stops, attachment boom stops, and backstops. These devices restrict the boom from moving above a certain maximum angle and toppling over backward."

Boom suspension system. No comments.

Builder. Closson noted that this term is only used one time in the requirements and then it is used in conjunction with "manufacturer," so is it really necessary to define? Yow noted that this definition could be problematic for overhead cranes where there is a "manufacturer" and then there are entities that assemble or construct the manufactured crane. The consensus was to strike this definition.

Center of gravity. Chair noted that a written comment had recommended changing the definition. The proposal had been to replace the federal definition with one from Webster's Dictionary; however, Closson questioned why we should define a term that is commonly understood. There being no objection from the committee, the definition was removed.

Certified welder. Harkey, Ironworkers, recommended striking "nationally recognized." He noted that some authorities having jurisdiction (AHJ's), San Bernardino for example, have their own certification requirements. The Division commented that lack of recognized certification requirements can be problematic. Closson noted however that there is no list of nationally recognized welding standards (AWS is one, but not the only one). The consensus was to strike "nationally" so that the definition would read: "Certified welder. A welder who meets ~~nationally~~ recognized certification requirements applicable for the task being performed."

Climbing. A written comment questioned whether this would apply to lowering as well? The discussion indicated that this is merely a definition, and it would be best to see how the term is used later in the regulatory text. The consensus was to leave this definition unchanged for now and to revisit the definition later if necessary and depending on how it is used.

Come-a-long. In response to a written comment, Chair recommended changing "leverage" to "mechanical advantage." Pena also recommended adding "strap" to the definition, so that the definition was modified to read: "Come-a-long. A mechanical device typically consisting of a chain, strap or cable attached at each end that is used to facilitate movement of materials through ~~leverage~~ mechanical advantage." [Ed note: Chair subsequently proposes to modify the last part to read: "by using mechanical advantage"]

Controlling entity. This definition is already in 1610.3; however it had been omitted from the proposed consolidation. As a result of a Division comment, it was proposed to bring it into section 4885. There were no objections.

Counterweight. "A weight used to supplement the weight of the equipment ~~machine~~ in providing stability for lifting working loads by counterbalancing those loads." Steinberg questioned the use of "supplement" (it implies that the weight is optional). He proposed alternate verbiage: "A weight required to achieve the design lifting capacity" (strike the rest of the definition). Pena opined the proposed modification was too vague. Chair noted that the definition is based on original state text with strikeout/underline modifications. There was further discussion favoring retaining existing state

verbiage. [Ed note: The existing state verbiage is the same as the B30.5 definition]

Portal Crane (Whirley Type). The proposal was to replace existing state verbiage with federal verbiage. Closson recommended deleting the last sentence of the federal text: "The gantry legs or columns usually have portal openings in between to allow passage of traffic beneath the gantry" because it is superfluous. There was more discussion with other deficiencies with the federal definition being noted. The discussion led to a consensus to retain the existing state verbiage and strike the federal definition.

Crane Runway (see also "Runway"). There was discussion about the potential conflicts that could be introduced with two definitions (i.e., "crane runway" and "runway"). One definition applies to overhead cranes and the other to construction site runways for mobile cranes. Because the definitions are for two different types of runways , it was decided to strike the cross-reference.

Crossover point. Closson opined that the last sentence is not necessary for the definition. There was no objection to striking the last sentence of the definition.

Dedicated channel. There was discussion about "assigned by the employer…" and whether that clause is always appropriate. However, Podue (ILWU) stated that, in longshoring, someone needs to be responsible to assign the channel(s). Harkey (Ironworkers) agreed. However, Thedell (Sempra) felt that the definition was trying to do two different things; define what it is, and to assign responsibility. Closson agreed with Thedell that, as written, this goes beyond just being a definition by assigning responsibility. Responsibility for assigning the dedicated channel can be dealt with later in the regulation. There appeared to be a division among labor and management on this definition. Bland suggested leaving the definition as-is for now and revisiting it later; however he suggested modifying "employer" to "employers" to cover multi-employer work sites. Thus, although there was no consensus at this time, the committee moved on, and may come back to this later.

Dedicated drilling rig. Chair noted that this definition was the result of a cleanup rulemaking a few years ago for the CSO crane safety orders. Yarbrough stated that the term "dedicated" is subject to interpretation; does it mean dedicated today or for this job, or always dedicated? He suggested something like "machines used <u>solely</u> to create bore holes…" Closson opined that "dedicated" means a rig or pile driver designed exclusively for that purpose. Bare (OSHA retired) opined that introducing the term "exclusively" would exclude many machines from enforcement as boring is often done with an attachment. Bland felt that this definition could cause a lot of enforcement problems; i.e., when is it a dedicated drilling rig and when is it a crane? The utility companies also brought up the issue of digger-derricks and how this might apply to them. Chair noted that since this definition is not part of the federal standards, it could be removed. There appeared to be agreement to delete this definition.

Dedicated pile-driver. No comments.

Dedicated spotter (power lines). Bland commented that the definition appears to require two separate people – a spotter with signal qualifications, and a separate signal person. He opined that both duties can sometimes be performed by the same person. However, others felt that these are two different duties and should be performed by two separate persons. Pena observed that section 5003.1(b)(4) spells out the duties of the spotter and opined they do not match up with the definition. Silbernagle and others opined that the definition is a guide to training and application of the code requirement and as long as the two don't conflict, the definition should be retained. Bland maintained that the definition which appears to require two separate individuals provides inconsistency that could result in litigation.

The committee was having difficulty reaching a consensus, so the Chair recommended continuing the discussion after lunch. The committee recessed for lunch at 11:35.

Dedicated spotter (power lines)- continued. Discussion resumed at 1:05. The chair observed that the last portion of the last sentence of the definition ("…and ensure through communication with the operator that the applicable minimum approach distance is not breached") appeared to overlap the requirement of 5003.1(b)(4)(A) and was therefore not needed. He asked whether it could be deleted. There was discussion about whether the spotter needed to be qualified per section 5001.3 (signal person qualifications). One person felt that the provisions of 5001(b) [exception] that anyone can give an emergency stop signal covered it; however, others disagreed. The committee was unable to reach consensus on the definition. [Ed notes: 1. The intent of the federal standard appears to require the spotter to be a qualified signal person. 2. Upon review of the recording, it was noted in the discussion that this is a definition; not a regulation. The last part of the definition is covered in the regulation [5003.1(b)(4)(A)] and can therefore be deleted from the definition.]

Directly under the load. The committee felt this was poorly defined. Yow noted that it wouldn't cover the case where a load falls and then injures an employee if it bounces or topples after the fall. Another commented that employees not directly under the load can also be injured if the wind carries the load. It was also opined that "fall zone" (later in these definitions) is more accurate. The consensus was to strike this definition.

Dismantling. This was another poorly written definition. Bland opined it was redundant, and there were no objections to removing it.

Drum rotation indicator. Closson questioned whether it is correct to say that rotation indicators indicate the direction of rotation. "Thumpers" only indicate there is rotation and relative speed, but not direction. The committee also felt that it was unnecessary to limit the definition to cranes and hoists, so there was also agreement to remove those terms as well.

Electrical contact. Closson felt the definition was unnecessary and recommended it be deleted. There being no objection, it was deleted. [Ed note: upon further review, it was determined that the definition includes necessary text; i.e., "…close proximity with an energized conductor or equipment that allows the passage of current," therefore it will be retained.]

Employer-made equipment. Yarbrough felt this definition was too limited (applies only to floating cranes and derricks). He said there are a lot of other examples of employer-made equipment used in highway and bridge construction. Another member agreed, so it was initially decided to take this definition out.
[Ed note: upon subsequent review, it was noted that in the context of these standards, the term is used only once [s. 4988.9(d)], and there it only applies to cranes and derricks. This definition is necessary to properly apply 4988.9]

Encroachment. After a short discussion the consensus was to keep this definition as-is.

Equipment criteria. The committee reviewed and had no comments on the following definitions:
Fall zone.
Flange points.
Floating cranes/derricks.

Free fall (of the load line). The only comment was to remove the parenthesis around "of the load line." [Ed note: upon review, it appears to make more sense to leave the parenthesis in.]

Free surface effect. A written comment from Closson had been received recommending removing "transverse" as not all vessels are rectangular. He felt the definition is more applicable without the term "transverse." The committee agreed.

Hoist. Nullmeyer noted that the proposed modification only applies to wire rope hoists and does not include chain hoists (scope of application narrower than existing state verbiage). Bland also opined that "mechanical device" could limit application to powered devices. Others noted that not all hoists have drums. Upon further discussion, it was determined that the existing state verbiage is more effective than the proposed modification.

Hoisting. "…in the air" in the federal definition limits hoisting to when the load is in the air. Hoisting can take place as soon as the lifting force is applied and before the load leaves the ground. There was also discussion about whether the last sentence: "As used in this standard, 'hoisting' can be done by means other than wire rope/hoist drum equipment" should be left in or removed. The conclusion was to keep it in the definition.

Include/including. The committee had no comments.

Insulating link/device. It was noted that there is no insulating link/device that can currently meet the testing criteria. It was also noted that since there is currently no listed insulating link, it cannot be used by itself; i.e., it can only be used in conjunction with other insulating means. The necessity for this definition was questioned. It was put forward that the labeling requirement was necessary to establish a minimum standard of performance. There was some discussion about just deleting "in accordance with 29 CFR 1910.7" but no agreement could be reached. Since no consensus could be reached, the definition was left as-is.

Jib stop (also referred to as a jib backstop). The committee had no comments.

Land crane/derrick. Closson noted that once a land crane is placed on a barge, its load ratings change. He felt this definition, as written, could be misleading or problematic. There being no objection, this definition will be struck. [Ed note: a subsequent review of the regulatory text indicates that, in the context in which this term is used, it is always clear that it is a land crane, not designed for marine use, which is located on a barge, vessel, or other means of flotation. The regulatory text (Art. 97.1) is also clear that the crane is to be permanently attached to the means of flotation.]

List. The committee had no comments.

Load (Working). Chair noted that the modified definition was copied from 1610.3 and that it had been the result of committee discussion when it was placed there. Closson stated that it is not entirely correct, as written. For example: the block is not part of the load for portal, tower and overhead cranes. Nullmeyer and others agreed that the block is not part of the load for a number of cranes. The Division however, wanted to retain "load block" so they can cite when an employee is struck by the block. Regarding "struck by" accidents, Bland commented that a definition is not the appropriate section to use for a "struck by" citation. There was more discussion whether to delete the definition or modify it.

Chair noted that it had previously been modified to address a DAR. After further discussion it was decided to add "as defined by the crane/derrick manufacturer" to the end of the definition. [Ed note: based on listening to committee discussion, particularly regarding the load block and the fact that it is not part of the load in many crane types, "load block" will be struck-out since it will now be covered by the "as defined by..." clause that has been added]

Load Moment (or rated capacity) Indicator. Closson felt the federal definition is too prescriptive. He recommended using the B30.5-2011 definition instead of the federal definition. The B30.5 definition for "Rated capacity indicator" is: "A device that automatically monitors radius, load weight, and load rating and warns the crane operator of an overload condition. " After further discussion the committee was in consensus to use the B30.5 definition.

Load Moment (or rated capacity) Limiter. Bland inquired what the B30.5 definition is for this term. The definition for "Rated capacity (load) limiter" is: "A device that automatically monitors radius, load weight, and load rating and prevents movements of the crane which would result in an overload condition. " The committee was in favor of replacing the federal definition with the B30.5 definition.

The committee had no comments on the following definitions:
Load rating.
Locomotive Crane.

Luffing Jib Limiting Device. Closson suggested that rather than use the federal definition ("similar to a boom hoist limiting device except…"), modify the definition for "boom hoist limiting device" to apply here. The committee reviewed the definition for "boom hoist limiting device" and agreed. Committee members assisted with the modifications to develop the consensus.

Marine Hoisted Personnel Transfer Device. Closson questioned why we want to define this. This device is for vessel-to-vessel transfer. There are special training requirements for its use which CA does not have, and since it is only used in a marine setting, its application is outside CA jurisdiction. The committee had no objection to deleting this definition.

Marine Worksite. Jorgensen suggested modifying to include under-the-water worksites. When asked, Caltrans indicated approval of this definition; they said that every bridge is a marine worksite. "Under" would include work in caissons. [Ed note: upon listening to the discussion, it was not clear that the commenters were specifically addressing the "under the water" issue. There was agreement that many sites can be marine worksites and this definition is appropriate; however, the discussion was less clear whether "under the water" was a necessary addition. For the time being we will leave "under" in the definition]

Mobile Crane. Closson opined that this definition is flawed and would not include crawler cranes (which are B30.5 cranes]. Closson noted there is no definition for "mobile crane" in B30.5, although it covers all types of mobile cranes. One unidentified member opined that "transport over the road" would include mobile/crawler cranes. Chair suggested including a reference to B30.5 in the definition. Another commenter suggested just removing "over the road;" however Souza opined that the removal of "over the road" would then include tower cranes within the scope of "mobile cranes." Yarbrough observed that almost every crane would fall under this definition because almost all can be transported over the road. He suggested including the concepts of "self-driven" and "independently transported" in order to clarify. However, he questioned whether the definition is necessary. Because of problems with the

existing definition and no clear agreement on how to fix it, the chair decided to remove it (and rely on the B30.5 industry standard classification).

Discussion on Multi-Purpose Machines

Comments were received that these are ASME B56 material handlers that can be fitted with attachments to function as cranes. Closson noted that sec. 4884 (Standards Incorporated by Reference) does not include B56 series standards in the scope of this Group, and if attachments modify them to function as a crane they do not meet any of the B30 standards incorporated by reference.

Bland (RCA/CFCA) commented that the phrase "or hook" is problematic. He opined that a hook on the end of a jib does not make the vehicle a crane. Larhagoue (CEA) wanted to go on record that they agree with Bland's position.

Silbernagle (Morrow Equipment) participated in the Washington state crane rulemaking and he commented that they steered clear of the hook issue by instead using the term "hoisting capabilities." He opined that it needed a winch pack to fall under these standards, not just a hook.

Jacobs (Operating Engineers) said the key is a suspended load (regardless of whether it is suspended from a hook or from a winch and hook). He noted that knuckle booms have a hook at the end, the key is the suspended load.

Yarbrough (Caltrans) said that contractors routinely pick up K-rail, etc., with slings over the forks, and in his opinion that is not a suspended load. He thinks the distinction when it becomes a crane is when it can raise and lower with a winch. He asked whether those who support the suspended load point of view want to make an excavator a crane when it picks up a load with a sling. He said that excavator and multi-purpose machine manufacturers specify the maximum load for the bucket. He opined that suspending is not the defining factor either because he can suspend with a sling.

Chair noted that OSHA had issued an interpretation on this. An unidentified commenter opined that the sentences of the interpretation that apply are: "Equipment that is designed to function as both a crane and a forklift would be considered multi-purpose equipment and covered by the crane standard when configured, and operated as, a crane. However, [the request for interpretation] submitted a picture of, and information about, a typical vertical mast forklift with a variable length boom attachment that uses slings or a rope to hoist and move a suspended load. This type of forklift described was designed by the manufacturer to lift palletized loads or those that can be safely handled and supported by the forks of the equipment. The described configuration of a forklift, unlike a crane or derrick, can only provide powered horizontal and vertical movement of the suspended load by both driving the forklift horizontally in addition to moving its mast and forks. Although the described boom attachment extends the reach of the forks, it was not designed to provide powered horizontal and vertical movement of the load. This forklift configured with the described boom attachment is not covered by the cranes standard."[1] [Emphasis added]

Chair surmised that, if we go with the federal interpretation, we would modify the definition of "multi-purpose machine" by striking-out references to "hook" from the definition. Bland recommended also striking out the phrases "jib (with a hook at the end)." However, Jacobs opined that the risks are the

[1] U.S. DOL/OSHA Standard Interpretation of 1926.1400 to Hon. Jeff Miller, dated 6/21/2012.

same whenever the load is suspended.

Closson commented that multi-purpose machines with winch packs are aerial devices; however, if the machine is moving wallboard or panel board using forks, it is not a crane.

Bland opined that it is rotating the load that changes the dynamic and introduces stability problems that had been raised earlier. Jacobs countered that the key factor is the suspended load.

It became clear from the discussion that there was no consensus regarding the definition of a multi-purpose machine, and it will be necessary to revisit this definition again, probably in a subcommittee.

Nationally Recognized Accrediting Agency. Yarbrough commented that NCCA is now under ICE (Institute for Credentialing Excellence), so the definition is not entirely accurate. Closson questioned whether these entities can be considered to be independent since they are certified under NCCA/ICE or ANSI. He also inquired about the meaning of "widely recognized" – how widely and by whom? It was noted by others that 1926.1427 and T8 sec. 5006.1 both define this in more detail later in the standards. Because this term is defined in more detail in the standards the question was raised whether we need to define it here. Yarbrough stated that it is useful for Caltrans in determining whether an operator is qualified because there are other groups out there issuing crane operator cards which don't meet these qualifications. This definition makes it easier for Caltrans to settle disputes that arise about operator qualifications. Closson proposed deleting the portion about independence. Closson recommended deleting "independence" and "widely" from the proposal. Nypl stated that there was a discussion in the federal register about independence which we might want to check on before deleting. With regard to ICE/NCCA, it was decided to leave both in the definition since both are recognized in the industry.

Nonconductive. An IBEW representative said they would like this definition to be deleted because no material is non-conductive when sufficient voltage is applied to it. A number of committee members supported deleting this term; no one opposed its removal.
[Ed Note: One member made a suggestion to use the definition for nonconductive found in the HVESO; however it has been determined there is no such definition in the HVESO, probably for the reasons given above. However, "nonconductive" is used in sections 5005(b) and 5010(b)(2), so it is necessary to define. Chair has modified the definition based on committee members' concerns.]

Operational Aids. The committee had no comments.

Operational Controls. A committee member asked if this definition was necessary. There was no objection to removing this definition.

Operator. This definition was deemed self-evident and there was no committee objection to removing it.

Overhead and gantry cranes. Closson had concerns about the use of the terms wheels "…or other means" in that they could create confusion about applicability of the standard. He also had issues with including launching gantries as he didn't see them in the same category as the other types of cranes listed. In order to address his concern, Chair proposed striking the text from "launching gantry cranes" through the rest of the sentence. There was consensus to make this change.

Pendants. Closson opined that the proposal was more instructional than definitive. Also, pendants are used in tower cranes to support the jib, so the definition isn't universally true; it may be correct for mobile cranes, but not for tower cranes. Davis suggested limiting the definition to mobile cranes. Souza proposed deleting the definition because manufacturers all define/identify what pendants are for their equipment. Closson suggested that the necessity for the definition would depend on how it is used in the regulatory text; furthermore, the meaning of "pendant" is widely understood in the industry. A suggestion was made to strike the definition.
[Ed note: A subsequent review of the regulatory text located several places where the term appears. Chair proposes to use the term as defined in B30.3 and B30.5 – the committee may wish to reconsider.]

Power lines. Caltrans felt we should define the minimum voltage as this is a question that often comes up in the field. He noted that telephone lines carry up to 50 volts, and the question comes up about clearances from telephone lines. He also noted that sec. 5003.1 is titled "Power Line Safety (up to 350 kV)." Although others felt we should set a lower voltage limit for "power lines", it was concluded that the lower voltage limit(s) will be set in the 5003 series standards which will follow, and thus the proposed definition should stay as-is.
[Ed note: federal standards do not set a lower limit, see 1926.1408, Table A]

Procedures. The committee had no comments.

Proximity alarm. Chair noted that the CDAC committee had left in the definition for insulating links which has similar NRTL issues as do proximity alarms, so for consistency we should probably retain this definition as well. There was objection to retaining this definition.

Qualified evaluator (not a third party), and *Qualified evaluator (third party)*. Pena asked if this would create a new requirement for qualification for signal persons. It was noted that this requirement is already in the CSO, although, the consolidation could cause it to apply to general industry as well. The applicability issue can be dealt with in the regulatory text.

Qualified rigger. Similar concerns to those above and similar solution. No change proposed.

Range Control Limit Device, and *Range Control Warning Device*. Silbernagle requested that "by an equipment operator" be removed from both definitions as the definition is not the appropriate location for this requirement. The committee had no objection.

Rated Capacity. This was already discussed as part of the discussion on load moment indicators.

The committee had no comments on the following definitions:
Rated capacity indicator.
Rated capacity limiter.

Registered Professional Engineer (RPE). This definition is proposed to be brought over from the CSO 1610.3. There was no objection to bringing it over.

Repetitive pickup points. Closson said the B30 spent months discussing what this is and never was able to come to agreement. There were no other comments from the committee.

Running Wire Rope. Closson recommended changing "moves" to "travels" over sheaves. There were no

other comments from the committee.

Runway. This had previously been discussed the same time as "crane runway." No changes were proposed.

Sideboom Crane. Closson noted that some sideboom cranes are now manufactured with booms that can be rotated, so the definition limiting boom motion only to the vertical direction are no longer accurate. It was decided to leave the definition consistent with the federal definition for the time being.

The committee had no comments on the following definitions:
Special Hazard Warnings. *Stability (flotation device)*.
Standard Method.
Such as.
Superstructure.

Tagline. Closson noted that the definition is not entirely correct. On larger loads the tagline can be wire rope and a winch can be used; however for day-to-day operations the proposed definition will suffice.

The committee had no comments on the following definitions:
Tender.
Tilt Up or Tilt Down Operation.
Trim.

Travel Bogie (tower cranes). See discussion of Trolley below.

Trolley. Silbernagle said that travel bogies and trolleys are not the same. Travel bogies are at the base of the crane and run on rails. Trolleys run on the jib. Closson agreed. The committee decided to delete the definition of "Travel Bogie" because it is incorrect. [Ed note: Definitions for "Travel bogie" and "Trolley" per ASME B30.3 have been added for clarity]

Two-Blocking. The proposal was to amend the existing state definition with additional federal verbiage. The committee was in agreement that the amendment was unnecessary; i.e. keep state verbiage unmodified.

The committee had no comments on the following definitions:
Unavailable procedures.
Upperstructure.

Upperworks. Closson opined that the last sentence of the definition is not entirely correct. The location of the counterweight varies by the design/type of crane. There were no objections to deleting the last sentence.

Up to. Removed as being superfluous.

Wire rope. The committee had no comments.

This completed the committee's review of Section 4885, Definitions, and the committee was recessed at 4:35 pm for the day.

Wednesday, September 10, 2014 (Second Day).

1. Opening remarks.

The meeting was called to order by Chairman, Conrad Tolson, Senior Engineer, OSHSB, at 9:05 am. Chair was assisted by Bernie Osburn, Staff Services Analyst, OSHSB. The Chair reminded those in attendance to please sign-in for the second day; he also requested business cards if available. The meeting opened with self-introductions by those in attendance, including members and interested parties.

The Chair noted that he had received a few comments after the meeting yesterday expressing concern that the committee was deleting too many definitions. The commenters opined that, although everyone in the room understands these terms, they are also for others who may not be as familiar with the terminology, to assist them in proper application of the standards. With that in-mind the Chair brought the following section 4885 definitions back up for reconsideration: Dedicated drilling rig, Land crane/derrick, Mobile crane, Nationally Recognized Accrediting Agency, and Pendant.

Bland suggested it might be better to wait and see how the terms are used in the regulations and then return to define them if necessary for clarity. Wick inquired about where the committee was going from here as that might have an influence on deliberations. The Chair directed the committee's attention to the "Proposed Order of Review" (a handout) which laid-out a road map for the deliberations.

"Nationally Recognized Accrediting Agency." With regard to the definition for "Nationally Recognized Accrediting Agency" Bob Hornauer, NCCCO, clarified that NCCA has always been a subsidiary of NOCA (National Organization for Competency Assurance). NOCA changed its name in 2009 to Institute for Credentialing Excellence (ICE). Hornauer stated that changing from NCCA to ICE in the definition would be incorrect; there has just been a change in the name of the parent organization.

There was discussion about the use of NCCA v. ICE. Yarbrough felt the introduction of ICE into the definition could create confusion, particularly for small contractors which Caltrans often deals with. Yow noted that GISO 5006.1(c) refers to NCCA.

Bland observed that the two different definitions (4885 and 5006.1) could create problems in litigation. Hornauer clarified that NCCA does the accrediting; and that NCCA is a subsidiary of ICE. Bland noted that 5006.1 uses the term "Accredited Certifying Entity" which is inconsistent with "Nationally Recognized Accrediting Agency."

The conclusion was that the committee should revisit this definition when we get to sections 5006.1 and 5006.2.
[Ed note: 5006.2, as presently drafted, uses "Accredited Certifying Entity" and thus may obviate the need to define "Nationally Recognized Accrediting Agency"]

The committee was of the opinion that, with the exception of possible modifications to "Nationally Recognized Accrediting Agency" there was no need to reinstate any of the other definitions listed above.

The committee then took up discussion of section 4884.

***Section 4884**, Standards Incorporated by Reference.*

Chair informed the committee that in order to combine/coordinate the federal standards with GISO Group 13 it was necessary to realign some section numbers and relocate some content. Section 4884 as presently adopted primarily contains standards incorporated by reference, thus it was one of those sections affected by the proposed consolidation. A new section 4880 is proposed to address scope and 4884 is proposed to be renamed to "Standards Incorporated by Reference." Chair also noted that 4884 subsections (b) and (c) will not change. Subsection (d) is being copied from CSO Article 15 (with obsolete federal standards references). Existing subsections (d)-(f) are only being re-numbered.

Subsection (d) *ASME B30 Standards.* A suggestion was made to update reference standards to current editions of B30 standards. Pena however, opined that some newer standards may be less protective than older standards, particularly as regards testing requirements. Closson observed, however, that the incorporation would only apply to design, construction and installation, thus these changes will only apply to manufacturers; not to users. Chair noted that the standards set applicable standards based on the date of manufacture of the crane; therefore older cranes will not be expected to comply with the latest standards. He offered that he could update referenced standards for subsection (d) [the most current window, going forward from July 7, 2011] to current standards and mail them out with the minutes for committee member review.
[Ed note: All referenced B30 standards have been updated to current editions in new section 4884(e)]

Subsection (d)(1) *Additional Standards*. Closson stated that it is impossible for a crane to conform to both the B30 standards and the international standards included in subsection (d)(1). The B30 standards already include cross-references to AWS standards, so they don't need to be re-stated here. Closson stated that when the CDAC was written, some of the older B30 standards did not include welding standards but newer editions do. He and others recommended that subsection (d)(1) be deleted. There was no objection to deleting subsection (d)(1).

Subsection (i) *Prototype testing*. The committee had no comments.

Section 4880, *Scope*.
Due to inter-relationships of subsections (a)-(c), they were considered as a bundle. The Chair had difficulty focusing committee comments due to the large size of the first paragraph; however, by going thru sequentially the various crane types listed in subparagraph (a), the discussion eventually focused on "multi-purpose machines when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load."

Discussion on Multi-Purpose Machines
Yarbrough felt that "hook" is not critical to what makes the machine subject to the standards. In his opinion it is raising and lowering, thus the winch is the important factor.

Jacobs emphasized that the critical factor in his opinion is the suspended load, whether it is being pulled by means of a winch or hung off the end of a jib, it is a suspended load. Ms. Lahargoue disagreed, saying something to the effect that a multipurpose machine is not a crane; it is a forklift with a hook on it.

Bland suggested that if "hook" is essential to the definition, then he suggested changing the "or" to "and" so that it would read: "winch and hook." He added that the federal interpretation indicated that, based on the preamble, they did not intend a forklift with a chain or rigging with a hook at the end to be considered as a crane. In his opinion the dynamic problems of a suspended load do not come into play when the load is suspended with a short choker, it is when the load is played-out that wind and other

dynamics can come into play. He also asked how an operator could get NCCCO certified to operate a forklift with a winch and hook when NCCO doesn't have testing criteria.

Berg stated that the Division agrees with the Operating Engineers. He noted that the title of Group 13 is "Cranes and Other Hoisting Equipment." He added that they investigate more accidents involving Gradalls (multipurpose machines) than cranes.

Closson said he did not disagree about the dynamics of a suspended load, but he felt that including forklifts in this standard is like trying to put a square peg in a round hole called "cranes and derricks." He noted that extensible boom forklifts are built to ASME B56 standards; they do not conform to any of the reference standards in section 4885. He said that forklifts are unique, they need to be addressed, but he doesn't think the crane standards are appropriate. He opined that the forklift standard is the appropriate place for requirements for this type of machine. Tangentially he added that some aerial devices with personnel platforms (manufactured to ASME A92 standards) can also be fitted with winches that can be used to lift with personnel in the platform, yet operator certification is not required for those types of machines. He concluded that the appropriate location for requirements for multipurpose machines/forklifts is in the forklift [PIT] standard. He noted that some manufacturers make industrial (carry-deck) cranes to B56 and others to B30.5. He therefore posited that we should regulate the machine according to the ASME standard they are constructed to.

Strunk (OE#3) opposed regulating machines based on what ASME standard they are constructed to. He saw this as watering-down the federal standard which doesn't make that distinction.

Bland countered that the proposal to supplement those (PIT) standards would not lessen employee safety. He added that the state has complete sections on powered industrial trucks (PIT), rigging and training, so to say no standards cover those machines is inaccurate. Whenever accidents occur, those standards apply and are cited. He opined that changing "winch or hook" to "winch and hook" would make it even clearer. He reiterated his opinion that a hoist has always been an integral part of what makes a crane and that broadening the standard to define a crane to include machines without a hoist will create new regulatory problems. Would any forklift that may someday be modified with an add-on jib require operator certification when no standards exist? He agreed with Closson that it would be more appropriate to modify the PIT standards if necessary and added that existing standards already cover these machines.

Baer stated that OSHA had spent a lot of time getting to the verbiage they currently have. He did not rule-out the possibility that PIT standards could be carved out, but care would be needed to assure that the result is at least as effective.

Jacobs noted that about half the equipment at the show in Las Vegas was multipurpose machines and they are outracing any regs currently in place.

Armstrong (PG&E) and Wick supported the idea of putting multipurpose in the PIT standards.

Nypl opined that the machine takes on the characteristics of a crane when it has a winch on it.

It was mentioned that some multipurpose machines now are able to rotate the boom. Bland said he had no problem with including swinging jibs/booms in the crane standards because of the dynamic load.

Closson noted that the ASME B56 committee used to be chaired by ASME; however the industrial truck association petitioned to take it over and they now chair the committee. He is of the opinion that the goal of the B56 committee is to go to the European standards for multipurpose machines. Ultimately multipurpose machines will not be covered by B56 or B30 standards, but will instead by covered exclusively by European standards.

Chair commented that it will be difficult to move forward if the committee isn't able to reach agreement on forklifts and multipurpose machines. Since the committee seemed currently at impasse, Chair recessed the committee for a 20 minute break to see if anything could be worked-out. [1004/1:13:00]

After the break: [10:40 am]
Chair stated that the parties had discussed their differences during the break and agreed to take the scope issue to a subcommittee. Rather than send everyone home, Chair said the committee should try to move on to other sections if possible. Before leaving section 4880, he thought the committee might be able to discuss subsection 4880(e).

Section 4880(e), *Work covered by the High-Voltage Electrical Safety Orders*
It was noted that there are some differences in clearance distances between the proposal and those in the HVESO. Pena noted that electric utilities, as permitted by HVESO Article 36 and 37, can work at distances less than the proposed standard and he wanted to be sure those distances were maintained for the utility industry. Therefore it was suggested to leave section 4880(e) unmodified/as proposed.

Section 4880(f) *Section 4991.1 does not apply to cranes designed for use on railroad tracks*… The committee had no problem with this subsection.

Section 4881*, General requirements.*
Subsection (a)(1), Availability of rated capacity and related information. There was discussion about where to locate this information for equipment with cabs and without cabs. One commenter noted that some cranes use remote controls. It was suggested to use the B30.5 verbiage which requires this information to be "in an area accessible to the operator while at the controls." It was also noted that it is increasingly common (due to volume of information) for this information to be available in only electronic form. There was continued discussion where to locate the information. Closson commented that the required information does not apply to tower, portal or overhead cranes. He and others also commented that this verbiage requires a tremendous amount of information to be available to the operator, and the operator is responsible to be familiar with the manufacturer's instructions before he makes the lift.

Due to the large amount of information required, there was discussion about what information needed to be available to the operator, and what information the operator needs to be familiarized with prior to taking the controls.

Closson emphasized that almost all of the items listed in 4881(a)(1) apply only to mobile cranes so (a) should not begin with the term "all equipment." Nullmeyer agreed that load charts and the other items do not apply to overhead cranes.

Chair noted that these requirements come from federal requirements for cranes and derricks in construction, and asked if it would help to identify these requirements as being specific for construction; however, Closson said the problem is with the type of crane, not the environment.

Yow noted that, in our current Group 13 standards, Art. 92 contains requirements for cranes (except boom type mobile), Art 93 is for boom-type mobile, Art. 96 is for tower cranes, and they each have different requirements. He opined that these Articles already contained crane type-specific requirements and thus section 4881 was unnecessary. He added that sections 4907 (overhead), 4923 (mobile), 4961 (derricks), 4966 (tower cranes) contains almost all the applicable requirements found in 4881 (which only apply to boom-type mobile cranes).

Closson opined that because of Section 4884, Standards Incorporated by Reference, we do not need to include these documentation requirements here because the referenced B30 standards already cover them. Chair noted, however, that many stakeholders prefer to have requirements spelled-out in T8 rather than them having to go to the B30 standards.

Chair proposed to go back and compare the sections listed (above) by Yow with the counterpart federal requirements, so section 4881(a) would become unnecessary.

4881(b), *Posted warnings*. Closson noted that posted warnings are updated by the manufacturer throughout the life of the crane and he therefore recommended the deletion of "originally." Nullmeyer inquired about equipment where the manufacturer is no longer in business; Davis opined that this would be covered by 4884.1(a)(3). Thus it was opined that subsection (b) could be deleted. [Ed note: Chair determined to leave this section in with "originally" removed, and agrees that 4884.1(a)(3) should cover cases where the manufacturer is no longer in business].

4881(c), *Exhaust pipes, turbochargers, etc*. Closson opined that, as written, it would be impossible to perform [unscheduled/emergency] maintenance as it would not be possible for the mechanic to work on the machine without being exposed to hot exhaust pipes, etc. He recommended adding "inadvertent" to contact. The committee was in agreement to add "inadvertent contact."

There was discussion regarding "normal operating conditions." Closson noted that B30 standards define "normal operating conditions" as those within the manufacturer's operating recommendations. Under these conditions the operator is at the operating controls on the crane and no other persons except those appointed are to be on the crane. Thus he stated that maintenance is not normal operations. At this point the committee recommendation was to reword this subsection to read: "All exhaust pipes, turbochargers, and charge air coolers shall be insulated or guarded from inadvertent contact by employees during normal operating conditions."
[Ed note: a review of B30.5 section 5-1.9.2 subsequent to the meeting, revealed that the federal verbiage is very similar to B30.5 which uses "normal duties." Although B30.5 defined "normal operating conditions" as stated by Closson, it instead used "normal duties" for the guarding requirement. Furthermore, the state draft proposal does not define "normal operating conditions," so if we were to use "normal operating conditions" as recommended, we would need to add the B30.5 definition to section 4885. Chair has therefore decided not to add an undefined term (in T8) to 4881(c) and to keep the verbiage nearly identical to the federal verbiage with the exception of adding "inadvertent."]

4881(d), *Load hooks.* The consensus was that unlatched hooks are not permitted in CA and that the parenthetical expression should therefore be deleted.

At this point the committee recessed for lunch. After lunch the committee took up section 4882.

4882, *Supplemental General Requirements for Cranes in Construction*. Chair explained that this section contains requirements in the federal standard for cranes and derricks in construction which did not appear to apply to General Industry, so he put them in this separate section.

4882(a)(1), *Cabs*. Closson questioned whether all these requirements are necessary. For example, is it necessary to require an operational heater for a crane in San Diego in the summertime? Podue opined that if equipment is provided by the manufacturer it should be kept in operating condition. Cranes can move from one location to another, and seasons change. He also opined that this requirement should be a general industry requirement, applicable to all cranes. Closson also saw the draft verbiage as creating a requirement. Someone suggested adding "may include" in the list of examples.

4882(a)(3), *Windows.* Closson opined that, as written, the draft requires every cab to have glass. Glass windows/openings are not always required; the safety issue is visibility. Thus it was proposed to add to (a)(1) and (a)(3) "when/if provided" and clarify (a)(3). Nullmeyer proposed removing "the cab shall have" because not all cranes have cabs. He also opined that subsection (3) should just be titled "windows" because (A)-(C) only apply if windows are provided. Others noted also that many cranes do not have cabs. There was also discussion whether this section was even needed since it is covered by B30.5; however others opined that this is necessary to cover older cranes and cranes that might be modified in the field. There was also discussion about the optical qualities of the glass. Yow noted that this is covered by Section 4925. Chair notes that section 4925 is limited to mobile cranes. Section 4882 will apply to tower cranes and other cranes with cabs as well, and 4882(a)(3)(C) covers optical properties.

Based on comments received at the committee, the Chair modified the proposal to address committee concerns. The modified proposal is based on B30.5, section 5-1.8.1(b).

4882(a)(4), *Passageway.* No comments.

4882(a)(5), *Cab roof.* Closson noted that the 250 lb. requirement is inconsistent with B30.5 which only requires 200 lb. Since it appeared that the feds had been following B30.5 for many of their standards, but they chose to use 250 lb. v. 200 lb. the difference must have been intentional. Furthermore, some employees carrying tools, etc., can easily exceed 200 lb. Bland observed that if we adopt the federal 250 lb. requirement, it may require special engineering. Berg noted that since this is a federal requirement, every crane constructed to B30.5 is out of compliance. Chair proposed deleting "without permanent distortion" so that cranes constructed to B30.5 would be compliant. There appeared to be agreement with this proposal.

Section 5050 [relocated to 4881(d)]*. Hooks, hook and ball assemblies, load blocks.* Closson opined that Article 101, Slings, was the wrong article to place this requirement. Chair checked and noted that the feds have this requirement under "Design, Construction and Testing," which would be comparable to T8 draft section 4881. Commenters also noted that the requirement for latching hooks is not practical for chain hooks and slings, among other applications.

Closson also opined that hooks are never marked with capacity, however the block is. He suggested the heading be changed to just read "Hook and ball assemblies, load blocks."
[Ed note: later clarified that weight and capacity marking only applies to mobile cranes.]

With regard to hook latches, Nypl noted that federal 1926.1433(d)(4)(ii) provides, in relevant part that "hooks without latches, or with latches removed or disabled, must not be used unless a qualified person has determined that it is safer to hoist and place the load without latches (or with the latches removed/tied-back)."

Chair noted that similar requirements already exist in 5002 (overhead loads) and 5004(i)(2) (rigging). Silbernagel added that fed section 1910 only requires that if the hook is designed to have a latch, the latch must be in-place and operational. Thus, there is a difference between construction and general industry requirements. Chair proposed that we modify the (now) 4881(e) requirement to include federal 1433(d)(4)(ii) as an exception. Bland saw a problem with this with respect to steel erection "shake-out" where the hook is designed to be used without a latch. He opined that this exception would require a qualified person to make the determination every time that a hook without a latch is used.

Closson proposed deleting "hooks" from the title and subsection (a) and also delete "latching hooks" from (b) to fix the steel shake-out problem. He opined that this change would then make this section applicable to mobile cranes and would remove hooks for chains or shake-out from the requirement. Bland indicated that these changes to the verbiage addressed his concerns with the "qualified person" exception.

The committee also agreed with Chair's earlier proposal to move the contents of section 5050 out of Article 101 into section 4881(d).

There was some discussion about moving existing section 5049, Defective Hoist or Sling Hooks and Rings, out of Article 101 for the same reason that 5050 was removed; however, upon further consideration it was determined that the contents of 5049 are appropriately located, thus there was agreement to leave 5049 where it is.

Section 4884.1*,Equipment modifications*.
4884.1(a) The proposal would prohibit modifications or additions which affect the capacity or safe operation of the equipment except when the provisions of one of five listed options are met. The options listed were: (1) Manufacturer review and approval, (2) Manufacturer refusal to review request, (3) Unavailable manufacturer, (4) Manufacturer does not complete the review within 120 days of the request, or (5) Multiple manufacturers of equipment designed for use on marine work sites.

Closson had concerns that this proposal offered a "work around" for people who want to take equipment made to safely operate at a particular capacity to modify it to make it work at a greater capacity. He added that a "qualified person" is not necessarily a person who has the knowledge that a manufacturer would have. He said that he has seen questionable modifications by "qualified persons" in the field (others agreed).

Davis stated that he is one of those "qualified persons," but under the CA Business and Professions Code, liability attaches to that work. He stated that he personally would not attempt to go around the manufacturer. Further discussion indicated that options (2) and (4) should be deleted. The committee appeared to be in agreement.

Yarbrough voiced his opinion that only option (1) should be allowed. Another person inquired about option (3). Silbernagel opined that (3) is necessary in the event that the manufacturer is no longer

available. There was agreement that (3) should be retained with the requirements of option (2)(A) and (B) included in option (3).

Another person inquired why option (4) was not included. The rationale is that if the manufacturer doesn't respond within 120 days of the request, it is the same as refusing to review the request [option (2)]. Closson also saw option (4) as another loophole for persons to get around the manufacturer.

Option (5) was discussed. A comment was made that the wording is confusing and difficult to understand. Another questioned whether this is outside Cal-OSHA jurisdiction. Berg responded that if the crane is on a barge, it is not under Cal-OSHA jurisdiction; however, if it is a tower crane with a foundation underwater (on the sea floor) it is within Cal-OSHA jurisdiction. Jacobs commented that dredgers and other marine operations have been building rigs with major structural components from more than one manufacturer. He questioned what standard(s) would apply to such assemblies; however, he presumed that is what option (5) is aimed for. Closson saw option (5) as another means of circumventing regulations. Upon further discussion, the committee was of the opinion that this pertained to installations that would be subject to federal jurisdiction and not state, and they were in agreement to delete this option. Baer stated that although this situation is uncommon, he opined that it should be retained to cover those rare occurrences. Jacobs stated that there are a number of cranes on the bay right now that fit this category. Chair noted, however, that if they are on the water, they are under federal jurisdiction. Jorgensen opined that the purpose of this section is to cover special modifications and if the manufacturer doesn't respond to the request, if the employer can get a qualified person and certified agent to agree on the modifications, they can create a crane for their special application. Bland opined that there is no need to have a special section/option for marine worksites; they are already covered by options (1) and (3) above. The general consensus of the committee seemed to be that Option (5) should be deleted.

4884.1(b) The committee was of the opinion that this could be another loophole to weaken the standard and thus it should be deleted as well.

Section 4991.1, *Ground Conditions*.
4991.1(a), Definitions: "Ground Conditions." There was discussion whether there was a difference between "compaction" and "firmness." Closson stated that crane manuals typically use the term "firmness" which means that some degree of sinking can occur as long as the machine is able to sustain the load applied to it. Strunk stated that "compaction" and "firmness" are not the same. The consensus was to leave this definition as-is.

"Supporting materials." OK as-is.

4991.1(b). "The equipment shall not be assembled or used unless ground conditions are firm,…" OK as-is.

4991.1(c)(2), "The controlling entity shall…" It was noted that "controlling entity" has been defined in section 4885. Yarbrough asked whether the controlling entity should be responsible to make the 811 call to locate utilities. He said that the question of who makes the call comes up often on bridge work. Often the controlling contractor needs to get site prep done before the crane contractor shows-up on the site. He said the responsibility for the report on site conditions has been the subject of frequent discussions on projects and he likes the idea that this section would establish who is responsible for the report. Bland added that this isn't just an 811 call, but also what's in the drawings and otherwise known

about site conditions. He added that the controlling contractor is in the best position to know what changes may have taken place on the site prior to arrival of the crane.

McCarthy questioned whether the phrase "if those hazards are identified…" gives an incentive not to search for hazards. Bland responded that if the hazards are in the documents, the controlling contractor is liable whether he looks for them or not. With the exception of a grammatical correction, the committee was in agreement to leave (c)(2) as-is.

4991.1(d) and (e). The committee had no comments on subsections (d) and (e).

Section 5010, *Assembly/Disassembly – Selection of Manufacturer or Employer Procedures*. Closson proposed clarifying that employee procedures should be in writing. Nypl said he rarely sees written employer procedures; however, the committee had no disagreement with this requirement.

Section 5010.1, *Assembly/Disassembly – General Requirements (applies to all assembly and disassembly operations).* Due to limited time, the committee decided to defer discussion of this section until the next meeting.

Section 5010.2, *Disassembly – Additional Requirements for Dismantling of Booms and Jibs (applies to both the use of manufacturer procedures and employer procedures).* Although these requirements appeared to be obvious, they were left-in because they are federal requirements.

This concluded the section-by-section review.

5. Economic Impact.
Chair gave a brief overview of what the committee had discussed to this point and asked if any of the committee members felt there would be any economic or fiscal impact due to what had been done to this point. No concerns were raised.

6. Conclusion.
Chair stated that normally he would have reviewed the consensus draft with the committee at this point; however, since this will be an on-going rulemaking, the committee will have an opportunity to review the proposal as it currently stands when the minutes and draft proposal (as it currently stands) are sent-out in approximately two months. If committee members see anything in the draft which is other than their recollection of what had been agreed to, they should send their comments to the Chair. These concerns can then be reviewed the next time the committee meets. Chair also requested committee members to keep-in-mind that the proposal they have in-hand is a preliminary draft and that it should not be presented to others as what the Standards Board is going to do. Also, until the new rulemaking is adopted, the existing CSO and GISO crane safety orders will remain in-effect. With regard to the subcommittee that will be meeting on the scope, the full committee will be advised of whatever might be agreed to before the next full meeting.

The Chair then thanked the committee members for their attendance and participation and adjourned the meeting at 3:20 p.m.