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June 1, 2010

Subject: Minutes of Advisory Committee Meeting –Container-Handling Rubber-Tired Gantry Cranes, General Industry Safety Orders, Sections 4906(c) and Proposed New Section 4906.1.

I would like to thank those who attended the Advisory Committee held May 4, 2010, in Sacramento. As you are aware, the purpose of an advisory committee is to determine whether standards are necessary to protect California workers, and if so, how the standards should be crafted. The advisory committee failed to reach consensus on the necessity for changes to existing standards for container-handling rubber-tired gantry cranes; thus a rulemaking will not result from this advisory committee.

Enclosed are copies of the meeting minutes, attendance sign-in sheets, and post-committee roster of members and interested parties.

The advisory committee identified the following issues which call into question the necessity for the rulemaking:

- Only one serious accident has occurred in the 15 years since Section 4906(c) was last changed. Taken in the context of the volume of containers handled at marine terminals, this does not support necessity for changing the standards.
- Title 8 standards must be reasonable, enforceable and contribute to worker safety. The proposal to reinstate a pre-1995 performance standard for wheel guards would require the installation of a wheel-guarding device that has not been beta tested and that is not yet available in the marketplace, thus exposing employers and manufacturers to citations and litigation without any proven improvement in worker safety.
- In the 15 years since the standard was last changed, employers and organized labor have developed and implemented voluntary safety standards and procedures which, based on accident statistics, appear to be effective in providing safe working conditions for employees.
- Technological developments such as GPS and RFID¹ container tracking systems have reduced employee exposure to hazards.
- Concerns that wheel guards could adversely affect/interfere with RTG operating characteristics, particularly in rail yards.
- Other vehicles with large, unprotected, wheels, such as top handlers operate at marine terminals, yet only RTG's were proposed to be protected.

Consequently, unless otherwise directed by the Board, staff is terminating this rulemaking action.

¹ Radio Frequency Identification systems.

Should you have any questions regarding this matter, please contact me at (916) 274-5722.

Thank you all for your willingness to commit your time and resources to this effort.

Sincerely,

Conrad E. Tolson, P.E.
Senior Engineer

Enclosures:

1. Meeting minutes
2. Attendance sign-in sheets
3. Post-committee roster

cc: All Standards Board members
Ken N. Atha, Regional Administrator, Federal OSHA, Region IX
Len Welsh, Chief, DOSH
Joel Foss, Acting Principal Safety Engineer, DOSH
Marley Hart, Executive Officer, OSHSB
Mike Manieri, Principal Safety Engineer, OSHSB

MINUTES OF ADVISORY COMMITTEE
Container-handling rubber-tired gantry cranes
General Industry Safety Orders, Section 4906(c)
and Proposed new Section 4906.1
May 4, 2010, Sacramento, CA

1. Opening remarks.

The meeting was called to order by the Chair, Conrad Tolson, Senior Engineer, Occupational Safety and Health Standards Board (Board) at 9:30 a.m. on Tuesday, May 4, 2010, in Sacramento, California. The Chair was assisted by Leslie Matsuoka, Associate Governmental Program Analyst. The meeting opened with introductions by those in attendance.

The Chair reviewed the Board's policy regarding the use of advisory committee (AC) meetings; i.e., that the Board has found them to be an effective way to reach consensus among affected groups, particularly in the development of sensitive, controversial and complex regulations. AC's provide an opportunity for management, labor, and interested parties, in an informal manner, to reach consensus on whether there is a need for standards or changes to standards, and if so, what changes are necessary.

2. Background and overview of the proposed rulemaking.

Section 4906(c), requires container-handling, rubber-tired, gantry crane (RTG) wheels to be guarded to the front and rear. Current verbiage requires the guarding to be "extended to the lowest practicable level above ground." This verbiage was last amended in July 1995. Prior to that time, Section 4906(c) contained an additional provision dating from 1986 that the wheel guards function to push a person out of the way in order to prevent them from being run over by the RTG.

Petition No. 495, received from Richard Grossman, a licensed mechanical and safety engineer, in 2007, requested the Board to amend Section 4906(c) to restore the performance-oriented verbiage that existed prior to 1995.

The Chair noted that, as part of the petition evaluation and subsequent to that time, he had been studying the issues raised by the petition in light of resistance to reinstating the pre-1995 performance-oriented verbiage. He noted that much has changed in intermodal container handling since 1995, and that the proposal before the committee would update Section 4906(c) based on current industry practices, procedures and technology in order to improve worker safety in the area of an operating RTG.

The Chair noted that the proposal was to:

1. Clarify Section 4885, definition of "Container-Handling Rubber-Tired Gantry Crane."
2. Relocate existing Section 4906(c) verbatim to new Section 4906.1(a).
3. Propose administrative safeguards for safety of ground personnel, including
 - a) Only essential personnel in immediate vicinity of the crane.
 - b) Automatic warning devices (horns, lights, etc.) to activate at least 3 seconds before the

- crane starts moving.
- c) The crane operator shall be in radio communication with a spotter on the ground and obtain clearance from the spotter before moving.
4. Permit alternative methods such as automatic means of detecting personnel in the path of travel in lieu of a spotter.

Chair noted that no federal standards for rubber-tired gantry cranes had been identified, other than 29 CFR 1917.45(g) which was actually for rail-mounted cranes.

3. Review of written comments received prior to the meeting.

One written comment had been received that morning from Brad Closson, Craft Forensic Services, who had been delayed en route. Mr. Closson requested the committee note there is a distinction between “wheel” and “tire” in international crane standards; and he urged the committee to use the term “tire guarding” rather than “wheel guarding,” which he felt was more accurate and would provide clarity for international suppliers who might enter the California market.

4. Establishing necessity for the rulemaking.

Two reportable accidents had been identified in the evaluation of Petition No. 495, and no others have been reported since then. The first was a fatal accident that occurred November 2, 1992. The second was an amputation accident that occurred May 18, 2005. Both involved clerks.

Mr. Grossman, the petitioner, gave a presentation. He stated that he is a forensic engineer; he investigates accidents and their causes, and sometimes becomes involved in ensuing litigation. He noted that some were questioning the necessity for this meeting since there are not many reported accidents; however, he speculated that there are many near misses and other incidents that are not reported. Regardless of how many accidents actually occur, the consequences are extremely severe, particularly amputations and death. He believes that this creates a necessity to do something to mitigate the consequences.

He stated that he had been involved in the investigation of the 2005 amputation accident. In that accident the RTG had been equipped with wheel guards that consisted of flat panels that extended to within about 6” of the ground, which is a fairly standard arrangement. He opined that the Triodyne study² proves that this type of guard does not work. He further speculated that the original intent of the Board when it adopted the standard in 1986 was to require that the wheel guards deflect personnel out of the way to prevent pedestrians from being run over. In his opinion, not only do the present wheel guards not work, but they function to knock pedestrians over when hit, and then pin the victim to the ground as the RTG runs over him. His client, the plaintiff’s attorney in the 2005 accident, paid him to design and fabricate a full-scale prototype wheel guard capable of pushing a victim out of the way whether they remain upright or fall on the ground. The guard “floats” approximately ½” above the ground on a large caster, and is constructed to accommodate surface irregularities. It can be raised and locked in an elevated

² The Triodyne study was commissioned by Mi-Jack Products and prepared by Triodyne Inc. The full title of the study is: “Mi-Jack Travelift Wheel Guard – Impact Study” by James R. Wingfield, Sr. Safety & Reliability Consultant, Triodyne, Inc, dated February 1992.

position should the RTG need to move over an irregular surface to get to a new location. He showed a short segment from a video he had produced to demonstrate the product and how it would prevent running over a victim as simulated by a dummy made of carpet and filled with rocks.

Mr. Grossman responded to questions, by stating that the device had not been tested on an actual RTG and it had not been tested with an anthropomorphic dummy. However, he opined that the prototype demonstrated that it is possible to develop a wheel guard that will protect a victim from being run-over. He opined that there are weaknesses with all of the proposed administrative measures. He believes these measures are all helpful, but without wheel guards there will continue to be accidents. He urged the committee and the Board to consider re-instating the performance language of Section 4906(c) that existed prior to 1995.

Responding to questions from Marc MacDonald, PMA, Grossman indicated that (1) he had been a paid expert witness in liability litigation related to the 2005 accident (he noted that the crane manufacturer and the owner had been defendants), (2) he did not have a patent on the guard, (3) he was not engaged in selling the guard, and (4) he was not being paid by anyone to appear at this advisory committee. MacDonald indicated that the amputation did not occur immediately as a result of the accident, but that the limb had been de-gloved, the victim was 70 years of age, and there were complications in healing that exacerbated the problem, thus opining that the incident was not strictly an amputation.

MacDonald stated that he had checked PMA's accident data back to 1980 and he had only found 216 incidents where RTG's were mentioned. He stated that a review of those incidents indicates that the most dangerous part of an RTG is not the wheel, but the vertical access ladder; i.e., people getting on and off the RTG (the operators). He also indicated that PMA brought a video that they would like to show the committee to demonstrate RTG operations in marine terminals. He opined that the Mi-Jack video demonstrated that it is not possible to construct a wheel guard that will push employees out of the way of the wheel. Furthermore, he opined that Grossman's video did not definitively demonstrate that an employee would be pushed out of the way; but rather the body would be pushed along the ground, and could be de-gloved by the pavement.

MacDonald went on to state that PMA did not want any employees to be knocked down by any yard equipment, whether it was a chassis, a top-handler, a side-handler, an RTG, or whatever. All those pieces of equipment have wheels and he feels that the hazard is not just limited to RTG's although he opined that the focus of this committee is just on RTG's. He questioned how the Board could consider putting a requirement into the standards without definitive proof that such a device is effective and commercially available. Furthermore, he felt that other portions of the proposal, such as limiting access to essential personnel, are not practical, and that is another reason he felt the PMA video would be instructive.

He went on to state that, over time, the clerks' duties are evolving so that there is much less need for them to be on the ground because of new technology coming into place. With respect to Grossman's suggestion that there should be a minimum of two spotters on the ground, MacDonald totally disagrees. PMA is trying to reduce hazards to employees by reducing the

number of employees that are required to be on the ground in vicinity of operating equipment. Again with respect to spotters, MacDonald later stated that the plaintiff in the 2005 litigation had been the clerk who had been in radio communication with the crane operator, directing the RTG, and had just given the crane the order to move while he was in the path of travel.

MacDonald also noted that there are two separate operating phases for RTG’s: (1) positioned in the delivery mode and (2) travel mode (moving up and down the lanes and container stacks).

Myron Glickman, Mi-Jack, stated that they had petitioned to remove the performance-oriented wording in 1995 because they felt it was physically impossible to comply with the requirement. Although there have been technological changes since that time, they still feel that it is impossible to comply with the performance-oriented requirement. There are too many variables (rain, snow, poor visibility, surface irregularities/pot holes, physical condition of employees working around the RTG, etc.) so that it is not possible to design a guard that will consistently push employees harmlessly out of the way. Furthermore, there are many other rubber-tired vehicles in the yard presenting similar hazards and they are not required to have wheel guarding.

Tim Podue, ILWU Coast Safety, stated that he felt that even if wheel guards were not 100% effective, they were still worth it if they could save one person’s life. Furthermore, although there have been technological advances, not all terminal operators have embraced them and there are still many employees on the ground. Therefore, he expressed his support for reinstating the performance-oriented language for wheel guards.

Grossman responded to the foregoing comments that the prototype he developed was intended to prove that it is technically feasible to design a wheel guard that will push employees out of the way and prevent them from being run over. Mi-Jack’s wheel guard is approximately 6” above the ground; whereas, his prototype proved it was possible to keep the wheel guard within ½”- 1” above the ground, thus he opined it would push the victim along or out of the path rather than running over them.

Mike Cuffe, Yusen Terminals, noted that positioning software, together with technological developments [for example: RFID and GPS³], make it possible to more accurately locate where containers are in the yard, which reduces the need for personnel to be in among the containers. He opined that clearing people from the ground improves employee safety more effectively than wheel guarding.

The Chair reminded the committee that the discussion at this time was to be focused on necessity to make changes to the standards and that the committee would get into feasibility should necessity be established.

Dan Zakula, Mi-Jack, said that they have designed many types of guards but none of them push people out of the way effectively. Nothing is currently available that will push people out of the way to prevent them from being run over, and they are concerned that we might mandate

³ RFID – Radio Frequency Identification using chips., GPS – Global Positioning Systems

equipment not currently available.

Tom Ison, BNSF, stated that in his 30 years’ experience, they have never had anyone run over or injured by a crane. BNSF spends a lot of time training personnel about crane operations and prescribes a work zone/area of operations. Only people that are trained and knowledgeable are permitted in the work zone. He opined that it is better to stop the crane before it gets to the person. There are new technologies such as radar and RFID that manufacturers are working on today to improve safety on the ground. Changing the design of the wheel guard could adversely change operating characteristics of the machine, such as turning radius and handling.

He went on to state that rail yard operations are different than those at a marine terminal, the port stacks boxes and the railroads load/unload trucks. However, the proposed changes could affect rail operations the same as longshoring.

Pete Favazza, ILWU Coast Safety Committee, stated that he is a longshore mechanic and he has designed and constructed many wheel guards. He believed they could adapt the petitioner’s design concept to their operations and make it work without a great deal of cost, and that it has the potential to make things safer.

The Chair commented that the discussion was getting back to the feasibility of wheel guards again, and that the proposal was not just limited to wheel guards. He also noted that the Board avoids requiring sole-source equipment and that the equipment is not yet commercially available.

MacDonald noted that the Board’s Petition Decision (dated September 20, 2007) contained certain proposed changes to Section 4906(c); however the proposal that had been mailed-out with the advisory committee invitation contained somewhat different wording, including a new Section 4906.1. He asked for clarification as to which proposal is in-play. The Chair responded that the “Proposed State Standard,” (Form 9) which had been mailed-out with the invitation (identified as Attachment #3), was the proposal that is up for consideration. The Form 9 takes into consideration developments since the Petition Decision was adopted.

Mr. Closson, who had joined the meeting, noted the need to keep the necessity for the rulemaking (or lack thereof) in perspective. Marine and rail terminals are controlled environments and he opined that there have been a very small number of accidents where people have been run over by RTG’s. He added that we are proposing to provide wheel guarding on a small number of vehicles in these environments while there are many faster and more mobile vehicles with equally obscured vision running around the yard that aren’t required to have wheel guarding.

The Chair asked MacDonald about the 216 RTG incidents that PMA had record of. MacDonald indicated that almost all of those are related to slips, trips and falls, although there had also been collisions between RTG’s and tractor trucks, pickup trucks, and other ground equipment.

Continuing discussion indicated that many committee members were focused on wheel guards, either supporting or opposing them. The Chair reminded the committee that the proposal

included other options. He emphasized that wheel guarding was only one of the options available. He directed the committee’s attention to the proposal. Section 4906.1(a) would take 4906(b) verbatim (without the pre-1995 performance requirement). Subsections 4906.1(b)-(d) are based on Section 1592(b) provisions which apply to a number of industries.

Garland Prewitt, representing a construction company that uses straddle cranes to move pre-cast sections, speaking to necessity, noted that PMA had reported that there had been 216 accidents involving RTG’s the past 30 years, only two of which involved employees being run over, and the BNSF railroad reported no accidents, thus he didn’t see a necessity to make any changes to the standard, certainly not the wheel guard. The Chair noted that the proposed standard would not apply to straddle trucks used for moving precast concrete; they are already covered by Article 31, Gantry Trucks.

Podue stated that he had seen or heard of more than two workers that were maimed, injured or killed at terminals by mobile equipment including RTG’s. He said that ILWU mechanics in LA had been putting wheel guards on machines there to protect their workers for years. Thus he believes wheel guards are quite feasible.

MacDonald indicated that they are totally in agreement with ILWU on the importance of worker safety. He noted that PMA and ILWU already have several safeguards negotiated into their PCMSC (Pacific Coast Marine Safety Code); for example: wheel guards required (Section 1445), emergency stops on cranes (1411), flashing warning lights on cranes, vehicles not to be parked so as to obstruct the RTG, clerks and signalmen to be in dedicated frequency radio contact with the crane operator (1418) and mechanics to be in radio contact with crane operator before boarding and/or working on the RTG (1446). He did note that, based on today’s discussion, Section 1445 is imperfectly written (i.e. requires wheel guard high enough to push someone out of the way). He said he would discuss this with Mr. Podue to work on getting it corrected. MacDonald emphasized that the RTG is operating in a controlled environment. Furthermore, he opined that the proposed administrative safeguards of Section 4906.1 are already in the PCMSC in one form or another (with the exception of the proposed 3 second delay which he feels impractical as would be evident in the PMA video). He noted that there is some ambiguity in the proposal as to what movement must have a delay (e.g., the delay should not apply to the trolley). He said that if it is required, it should only apply to moving up and down the pile (gantry mode).

5. Discussion.

The Chair noted that the discussion had again moved from necessity into a discussion of the proposal. He asked the committee if there was any opposition to moving into a line-by-line discussion of the proposal, and only two members were opposed.

Closson asked for clarification of the type of crane the proposal was addressing (container-handling). He noted that the specific ASME B30 standard is not dictated by what the crane is picking up; i.e. B30.24 applies to container cranes, but it is not dictated by what it is picking up (it could be precast sections, truck trailers, etc). Closson commented that if we focus this standard specifically on RTG’s working in a maritime, longshoring environment, it will be a different approach than Title 8 has taken to any other type of crane.

Ison added that this again points out that there are a lot of differences between maritime and rail operations. Rail is not just limited to containers; they also lift truck trailers. He opined that the existing verbiage seems to be working well for other industries (e.g. railroads), therefore the discussion should focus on what, if anything, might need to be changed for maritime.

Patrick Bell, Division of Occupational Safety & Health (Division) opined that the standard should remain broad and cover all rubber-tired gantry cranes; i.e., not be narrowed-down specifically to maritime container-handling RTG’s.

PMA Video

The committee viewed the PMA video. Relevant comments and questions during the viewing are as follows:

- Containers are off-loaded from the ship onto “bomb-carts” for transport to other parts of the terminal. The bomb-carts and “yard hustlers” (tractors) do not leave the terminal.
- A top-handler was shown taking containers off a bomb-cart and stacking them. MacDonald noted that the tires on the top handler (which are not required to be guarded) are in some cases as large as those on RTG’s.
- Outside drivers with their rigs take delivery of the container from the RTG. Bryan Bielski, UPRR, commented that the practice of allowing outside truckers under their cranes is totally unacceptable at UPRR. In their opinion, outside drivers are one of their biggest safety problems. UPRR uses their own drivers and trucks to transport boxes between the RTG transfer point and a parking row where outside drivers are notified by a dispatch system to come in and pick-up the boxes that are ready for them. Bielski added that they always have ground men (escorts) front and rear of the crane whenever it moves.
- MacDonald commented that one of the reasons they allow outside drivers under the crane is the sheer volume of containers when they are unloading a ship. A trainload is ± 200 containers, whereas a ship unloads approximately 3500 containers. He felt that the sheer volume of containers would make the railroad’s procedures impractical for marine work.
- However, Podue commented that he is aware that some east coast ports (New York and Brooklyn for example) do not allow outside truckers to enter their yards either, but instead they use longshoremen to drive the tractors and chassis under the cranes for the transfer.
- Another shot showed trucks lined up at an RTG awaiting their turn to take delivery of containers. In this case the RTG was stationary. According to MacDonald, RTG’s (except for minor adjustments) do not need to move once they are set-up to load containers onto waiting trucks. He also pointed out that the clerk normally operates out of a pickup truck, and the hatch tender (spotter) although he is on the ground, often very close to the RTG wheel, is in radio communication with the crane operator.
- Another shot showed RTG’s “gantrying” (traveling) from one place to another and different methods of guarding the back side of the RTG.
 - There was discussion about what the operator can see and cannot see, and it was agreed that there are some unavoidable blind spots. Podue indicated that the biggest problem is when the crane first starts to gantry. The operator can see “down the lane” (in the direction he is moving), but not what’s next to the wheel. MacDonald said that there should only be two people on the ground; the clerk and the signalman. He added that

- when the crane moves the signalman should be in radio contact with the crane operator, and the clerk should be in his pickup truck, which acts to provide a cocoon of protection.
- Grossman noted that “should be” is the operative phrase. However, people are not always where they “should be” and this is when accidents can happen.
 - Podue said he is a crane operator and he agreed that the most dangerous time is when the crane first starts, so he tries to start slowly because of the blind spot in front of the crane wheel.
 - Ed Hughlett, Ports America, commented that there is a slight delay when the crane prepares to move forward, there are flashing lights and an audible alarm, and because the spotter’s work station is next to the wheel, he knows to be very cautious about stepping back.
 - There was further discussion about the factors of worker complacency, ambient noise due to engines running, nearby alarms, etc, that can lead to missteps. (Ed. note: the RTG alarm for this RTG in gantry movement was quite distinguishable above the noise).
 - Another sequence showed the RTG making minor adjustments in position (e.g. 6-8”) in order to pick-up and transfer containers.
 - The purpose of this segment was to illustrate that a 3 second delay for minor adjustments was impractical. Podue agreed that time delays can be frustrating when making minor adjustments.

The Chair opined that, at least for the RTG shown in this segment, it appeared that guards such as proposed by Grossman, between the wheel sets might be impossible. Grossman said that in his opinion, he felt there was no need for guarding between wheels; he felt there was only a need to guard at the 4 corners. However, another speaker pointed out that when a RTG “cross-travels” (gantry’s at 90-degrees to the lane, traveling between one lane and another), those inner spaces between the wheels become exposed so that there is need for guarding both sides of each wheel. Later portions of the video showed an RTG cross-traveling and confirmed that both sides of each wheel need to be guarded to account for these movements. One committee member noted that there are different wheel configurations (not shown in this video) that turn differently for cross-traveling.

Podue commented that he was not aware of anyone ever having been struck by a cross-traveling crane. The hazard is when the crane is moving up and down the lane. Thus he didn’t think extra wheel guarding for cross-travel was necessary.

There was also discussion about deflection of the tire due to compression loading and irregular surfaces and whether this might create problems for the prototype wheel guard.

Ison commented that the operator’s station on RTG’s used by railroads is much different from marine terminals, and afford much better visibility, thus care needs to be taken in crafting any proposal because one size does not fit all.

The committee broke for lunch at the conclusion of the PMA video at 12:15 pm, and resumed deliberations at 1:35 pm.

After lunch.

The Chair opened by noting that much of the morning’s discussion had focused on wheel guarding and summarized that labor, the Division and the Petitioner were in favor of requiring wheel guards while management and manufacturers were opposed. Thus there was no consensus for wheel guards. Furthermore, the morning’s discussion indicated that although it might be possible to produce a device that would push a person out of the way to prevent them from being run over by the RTG, there is no such device currently on the market. He added that requiring devices that are not commercially available can present regulatory problems. However, he felt that a consensus might be possible on other parts of the proposal, such as the administrative safety measures.

Bell surmised that the most strenuous objections had been to requiring the wheel guard to push someone out of the way. He suggested alternative wording that would require that wheel guards be maintained in their normal operating position no more than 1-1/2 inches above the ground or operating surface so we don’t have large gaps that someone can get trapped and dragged under. He noted that existing standards⁴ already address working surface conditions (pot holes, etc).

Ison reiterated that RTG wheels experience dynamic compaction when the crane picks up a load, and this would affect the clearance of the wheel guard above the working surface. He commented that BNSF has full-height guards on their RTG’s which are spring-loaded and act to push someone out of the way. Furthermore, the guards shut-down the RTG if they make contact with any person or object. However, he reminded the committee that there are differences between railroad and maritime operations, and he opined that the existing standards are working well for the railroads. He noted that PMA and ILWU have a negotiated safety code⁵ and suggested they might want to consider incorporating the PCMSC standards into Title 8. He opined that a lot of what the committee had been talking about is specific to the maritime industry.

MacDonald, in discussing with Mi-Jack and Ison, clarified that the railroad-type wheel guard pivots at the top, but it still has 6” clearance at the bottom. The guards are higher because the RR wants to stop the crane if it makes contact with a rail car. Someone else also added that they have “whiskers” on the RTG which will shut down the crane if they contact anything.

Bielski added that they also had a “cone cart” (some call it a “Pope-mobile”) which elevates the worker off the ground to the level of the car. He said the RTG wheel guard will trip well in advance of overturning the cart. Glickman commented that the RR-type wheel guard will shut-down power to the RTG, but it cannot stop the crane instantaneously due to inertia if the crane is in motion.

MacDonald reiterated that it is better to have procedures to keep people away from operating RTG wheels and that there are other pieces of large equipment (including top handlers and chassis) that aren’t required to have wheel guards.

⁴ E.g. GISO Section 3465.

⁵ Pacific Coast Marine Safety Code (PCMSC)

With questions that had been raised about application of the proposed standards (maritime v. railroad) and in an attempt to move the discussion forward, the Chair suggested it might be helpful to discuss the proposed definition of RTG.

Although the Chair had attempted to clarify that the proposal was not limited to wheel guards, many of the participants continued to focus on them as being a central part of any agreement that might come out of the committee deliberations.

Closson reiterated that any tire guard would still require 4-1/2 to 5” clearance off the ground to allow for load compression, starting and stopping, and articulation.

Ison felt it would be better to allow each industry to find what works best for them rather than to impose a single standard that won’t work in all cases. He reiterated that PMA and ILWU have a means (the PCMSC) to agree on solutions to the problems within their industry without adversely impacting others. He added that BNSF labor and management had worked together on their unique problems and that is how they got to having the type of wheel guards they described earlier. He continued that the existing standard has worked well and that railroads see no necessity for changes and are concerned that any changes to Title 8 could adversely affect their operations.

Section 4885, Definition.

Turning to the definition, the Chair stated that it had been adapted from ASME B30.24 definitions. It was proposed as:

Gantry Crane, Container-Handling, Rubber-Tired. A gantry crane, consisting of overhead girders (bridge) carrying a movable hoisting mechanism (trolley) with container-handling spreader assembly. The girders are mounted on rigid legs which run on rubber tires. The crane is used primarily to lift intermodal shipping containers.

The Division was of the opinion that the definition as it currently exists in Title 8 is sufficient.

There was some discussion about the word “primarily” in the proposed definition. Railroads handle truck trailers as well as intermodal containers with RTG’s, and there are differences between the two types. Furthermore, there are differences in the way the two types are handled, including differences in drivers. BNSF uses the same drivers all the time, whereas over-the-road drivers who are often independent contractors take deliveries from RTG’s in marine terminals.

Closson felt that “primarily” should be deleted. It’s a crane, and it doesn’t matter what it is lifting; however, the Division felt that “primarily” should remain if the proposed definition is used. Closson also felt that the definition should be clarified that the RTG is built to B30.24 standards. [Ed note: The first edition of B30.24 was in 2008, and most RTG’s currently in-service probably pre-date this standard.]

Representatives of the railroads continued to voice concerns that the proposed standard would fix a problem that doesn’t exist in their industry, and they made efforts to limit the scope of the proposed standard to the maritime industry.

Ryan Ringelman, BNSF Attorney, stated that the evidence presented thus far had not demonstrated any need to make changes to the standard, certainly not for the railroad industry.

Discussion continued for awhile on the feasibility of and how to limit the scope of changes to the maritime industry.

Cuffe noted that there is a hand-off between the railroad and maritime operations at some terminals, so any verbiage to come out of this should be specific to RTG’s used in “on-dock” (i.e. maritime) operations.

Jake Flesher, attorney representing BNSF, stated that the definition should be clarified to exclude railroads or limit it to longshoring facilities.

Bielski added that BNSF employees do not touch the containers after their train enters the terminal.

At this point the proposed definition of “Gantry Crane, Container-Handling, Rubber-Tired,” remained unchanged. An attempt was made to move-on to Section 4906.1.

Section 4906.1

Following-up on Flesher’s comment to limit the scope to loading and unloading at maritime terminals, there was discussion about amending the title of Section 4906.1, Container Handling Rubber-Tired Gantry Cranes.

Vince Lamaestra, PMA, commented that if the scope of the proposal was going to be narrowed down to just maritime operations, why does the state need to get involved; i.e. why can’t PMA and ILWU work this out among themselves? He added that the accidents that had happened had occurred years ago, and their safety record has been better in recent years.

Podue reiterated that since Grossman had demonstrated a working prototype that appeared to comply with the pre-1995 performance standards, that changed the dynamic and thus the subject should of wheel guards be revisited.

Lamaestra, however, noted that Grossman’s prototype had yet to be beta (field) tested, and thus he questioned how we could require a device that had not yet been proven.

Necessity for Rulemaking Revisited.

The Chair observed that the committee had already discussed deflecting wheel guards extensively and there was no consensus to change the standards back to the performance standard. Furthermore, there appeared to be no support for changes that would affect anyone other than the maritime industry. Moreover, although the committee had moved into discussing proposed changes to the standard, a clear consensus had never been reached to make any changes to the standard.

Ringelman added that, in the context of necessity, there had only been two serious accidents with RTG’s in the past 18 years, and one of those occurred in 1992, prior to removal of the performance requirement from the standard. Thus only one accident, an amputation, has occurred since the 1995 change in the standard. Furthermore, in the last 18 years a number of safety features have been added to RTG’s.

It was noted that railroads appear to have a more controlled environment than marine terminals [Ed. note: based on the context, it appears this is due in part to the fact that truckers receiving loads from railroad RTG’s work there every day whereas over-the-road truckers are permitted into marine terminals]. Because of the differences in operating environments between railroads and marine terminals, Podue felt that wheel guards are (or should be) a last line of defense in addition to safe work practices already in place.

The Division noted that administrative safety controls, such as what the committee is being asked to consider, rely on people and technology, both of which are fallible, thus the Division also felt that wheel guarding as it currently exists is inadequate. Chair noted however, that there does not appear to be a wheel guard commercially available that will effectively deflect a person out of the way in a marine terminal environment. Bell opined that there had been an interest in beta (field) testing a wheel guard in marine terminals.

Glickman restated that, because of all the variables in marine terminals, the state should not mandate something that is not available.

Grossman opined that his product had demonstrated the feasibility of designing a wheel guard that would work and suggested that the Board include a 12-18 month phase-in to give manufacturers time to develop a production model.

Closson expressed doubts about the soundness of requiring an unproven product, giving as an example the automotive airbag, which took much time and testing to develop.

Ringelman reiterated that we are talking about one injury in the past 15 years (post-1995) and again questioned the necessity for a rulemaking. He also challenged statements made that the wheel guard is more effective. He asked what testing had been done to prove that there would be no unintended consequences of pushing and rolling a subject along the ground with the wheel guard. He noted that the petitioner’s video only demonstrated the product pushing a rolled-up carpet on a (relatively) smooth surface.

6. Conclusion.

At this point the Chair determined that the committee had reached an impasse; and that some members could not move past the wheel guard issue while other members were just as adamant in opposition. He noted that the committee had been moving toward limiting any changes to the maritime industry; however, many of the administrative safeguards proposed in Section 4906.1 are already incorporated in the ILWU-PMA PCMSC and the necessity for the state to get involved had been questioned since the issue had been narrowed to just being between the ILWU and PMA.

The Chair concluded that should conditions change in the future, this subject could be revisited (as a new rulemaking). However, it was clear that no consensus on wheel guards could be reached at this meeting and since some parties were unwilling to have a rulemaking without wheel guards, the committee was at impasse. The Chair would recommend to the Board to terminate the rulemaking.

The Chair thanked everyone for participating and adjourned the committee at 2:50 pm.