

April 23, 2020

Robert Burt  
Chair, Small Business Advocacy Review Panel  
Occupational Safety and Health Administration  
Department of Labor  
Washington, DC 20210

Dear Mr. Burt,

Thank you for the opportunity to participate as a Small Entity Representative (SER) during the Small Business Advocacy Review (SBAR) Panel examining OSHA's possible Tree Care Operations standard. It was an honor to participate last week representing the crane industry during a call with other SERs to discuss all aspects of the possible standard.

By way of background, I am third generation at Precision Crane Service, a crane rental contractor servicing all industries, including tree care and removal, in Central and Northern California since 1980. In addition to being the current Vice President at Precision Crane Service, I am also a certified crane operator, certified rigger, certified signal person, and an accredited Practical Examiner through the National Commission for the Certification of Crane Operators (NCCCO) in Mobile Cranes, Lattice Cranes, Rigger Level 1, and Signal Person. I am a member of Local 3 Operating Engineers, a member of the Northern California Crane Owners Association with 10 years on the Board of Directors most recently completing 3 terms as the President, and a member of the Specialized Carriers & Rigging Association's Crane & Rigging Group Safety Education & Training Committee. The Specialized Carriers & Rigging Association represents the crane industry in the U.S. and throughout the world. Safe tree care operations have been discussed within the organization, but we have been unable to realize any tangible solutions due to the absence of an OSHA standard addressing crane utilization in tree operations.

#### **Include Cranes in Tree Care Operations Standard**

The question has been raised as to whether or not cranes should be included in a tree care operations standard. My answer is, "Yes!" In 2010, **Subpart CC: Cranes and Derricks in Construction**, was published and, while it addresses all activities when using cranes in construction, it does not address tree care operations as these activities are very different in nature. However, it is my belief that any time a crane is being used to hoist personnel or engaged in tree care or removal, the same inherent hazards and risks still exist. The crane does not know or differentiate between construction and tree care.

#### **Use Existing Standard Language**

The language contained within the previously mentioned standard applies to crane operations, regardless of industry. Consideration should be given to including current language from that standard to any new standard under consideration. This allows crane operators to freely move between industries without the problem of conflicting standard language. Several sections within Subpart CC, could easily be transferred to the proposed new standard and I respectfully request OSHA consider including the following sections specific to personnel as they address the training and knowledge requirements necessary: Operator Training, Certification and Evaluation; Qualified Rigger; and Qualified Signalperson.

**The American Society of Mechanical Engineers' (ASME) B30.5-2018** has already defined the roles and responsibilities on a jobsite including Crane Owner, Crane User, Site Supervisor, Lift Director, and Crane Operator. This standard is an industry-consensus standard and widely accepted within the crane and rigging industry. Sometimes knowing who is responsible for what aspect of the job is as simple as the crane operator introducing themselves to the arborist, rigger, and signalperson. It does not have to be a long, complicated or convoluted process.

In my opinion, the most important issue relative to safe crane operations is understanding the roles and responsibilities of individuals on the site. Allow me to explain. All tree contractors, whether they use or own cranes, manage their own work within their company's capabilities. Once those capabilities are exhausted, they reach out to crane rental contractors such as Precision Crane Service. We have more experience and skill operating cranes hoisting the unusual size objects and loads in comparison with those who utilize cranes occasionally. When our industry arrives at the site, miscommunication can often occur between crane rental contractors and tree contractors that use cranes. Many believe the crane operator can also be the site supervisor. I strongly disagree. The crane operator cannot be responsible for pedestrians and keeping people safe when his or her main responsibility is to remain in the crane cab and control the crane operations. By way of example, the pilot of an airplane is not going to walk back and hand somebody a coffee and attend to the passengers. The pilot has a responsibility to fly that plane safely from the cockpit with all controls within his reach. He needs to be capable of reacting to any situation that may arise.. The same holds true in arboriculture, crane operators have a responsibility to safely operate the crane, not attend to other activities on the jobsite during crane operations.

I believe language addressing **Ground Conditions and Operating Cranes Around Powerlines from Subpart CC should also be included**. A crane operator does not know, nor should they be expected to know whether or not the ground beneath the location of where the crane is to be erected can support the crane. That is the responsibility of the controlling entity. The same is true for cranes operating near powerlines if they are near the tree. The powerline provisions of Subpart CC have reduced injuries within construction. Rather than ask why this provision should be included, I ask why it should not. This language is paramount to the safe operations of cranes during tree care and tree removal operations.

I'd like to address the question of "what criteria are used when determining that the crane is the safest or only feasible route (versus tree climbing and using aerial devices or compact lifts)?" Throughout the 40-year history of our company, we have never experienced any injury or fatality during this process, but we have witnessed countless injuries on tree climbers trying to ascend trees from the ground with the use of ropes, tools, and connections. Fatigue is an issue. In my opinion, the safest way for personnel to ascend a tree is by hoisting personnel with the crane. For example, a boatswain's chair which is allowed in various applications such as pile driving operations, on marine worksites, descending into a storage tank, and hoisting personnel into and out of drill shafts, is similar to the work positioning harnesses used by the tree care industry. Manbaskets and platforms should not be used. The crane industry supports hoisting personnel as it is the safest way to ascend a tree.

Within the current **Cranes and Derricks in Construction Standard, § 1926.1431(a) in the Cranes and Derricks Construction standard** states: The use of equipment to hoist employees is prohibited except where the employer demonstrates that the erection, use, and dismantling of conventional means of reaching the work area, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform, or scaffold, would be more hazardous, or is not possible because of the project's structural design or worksite conditions. This paragraph does not apply to work covered by subpart R (Steel Erection) of this

part and also does not apply to routine personnel access to an underground worksite via shaft as covered by § 1926.800 (Underground Construction) of this part. As stated previously, tree care operations is not the same as construction.

Precedence has already been set which allows for the hoisting of personnel that does not require a manbasket or aerial work platform. In fact, Michigan OSHA has very clear written standards allowing personnel to ride the headache ball in specific circumstances in steel erection. As discussed during the SBREFA calls, all involved in tree care operations agreed that hoisting personnel is the safest procedures and should be allowed. Again, the safest procedure when using a crane is to hoist personnel using a work positioning harness. Should this be determined to be the safest way and OSHA approved, crane manufacturers will likely allow this practice as it has been deemed to be the safest and most feasible way in getting workers safely to their work position. I strongly recommend OSHA avoid requiring the use of fall arrest systems in lieu of the work positioning harnesses as those may cause a greater hazard such as entanglement. If these are required, it will introduce additional hazards to personnel.

### **Weights & Communications**

It's important when using cranes that the weight of the tree be as accurate as possible. This is the responsibility of the qualified arborist in charge (required position by Z133 standards if a crane is being used in arboriculture work), not the crane owner or crane operator. As a matter of practice, our company will traditionally bring in a crane large enough that only requires 50% of the crane's rated capacity to perform the tree work in question. This is because tree weight is not always accurate and choosing a crane that meets the "exact calculated tree weight" could lead to a possible overload situation should the tree's weight be much greater than originally calculated. By utilizing this practice, our company has never overturned a crane during tree operations.

Another area of concern is communication among personnel. When using hand signals, we recognize some inconsistencies in signals and nomenclature, but these inconsistencies are few in number. There are standard hand signals within the crane industry and its important to ensure these remain consistent across industries – how to give the signals, how to receive and how to accurately state to the operator which operation is required. When using audible signals, again, consistency when relaying function, distance, and direction is important. While these may seem insignificant, they are extremely important during crane operations.

It's rare that a crane operator can see a lift zone which often results in the use of audible signals. This practice in the field circles directly back to why I'm suggesting we have qualified riggers and signalpersons in the tree industry. For example, when you have a nonqualified, non-certified person in the tree they don't understand simple dynamics and the consequences of telling a crane operator to hoist up. During this process, the boom is going to have deflection which changes the working radius of the crane, which changes the way the piece comes off the tree once cut. If the tree has not been properly rigged and the crane operator is working in the blind – with no visibility – there is a great risk of shock loading to the crane. When this happens, the crane loses stability and can overturn – even when it is well within its rated load capacity. In my experience, most tree personnel understand the effect of shock loading but don't understand how improper rigging or signaling can impact a crane's stability. Requiring qualified riggers and signalpersons will not create a financial burden on companies. Safety and training should be an ongoing daily process for all companies. In fact, in looking to the future, I would recommend OSHA consider including a requirement for certified riggers and certified signalpersons within 5 years of any standard promulgation. Twenty years ago, many within the crane industry balked at requiring crane operator certification over concern that it would create an undue

burden, yet the crane industry pushed for this requirement. While some within the tree industry may push back at this requirement, requiring certification for crane operators, riggers and signalpersons can only leader to safe jobsites and a reduction in worksite injuries and fatalities.

In summary, I appreciate the opportunity to participate on the panel representing both myself and the Specialized Carriers & Rigging Association. Our goal is to have a Tree Care Operations Standard which will allow companies to safely and efficiently operate while complying with a fair standard that positively impacts industry. Should you have any additional questions or request further clarification of the issues, please don't hesitate to contact me.

Respectfully,

A handwritten signature in black ink, appearing to read "Tyler Elliff". The signature is written in a cursive style with a large, sweeping initial "T".

Tyler Elliff  
Vice President

Precision Crane Service  
7590 Conde Lane, Windsor Ca 95492  
707-546-6900  
800-922-3302

cc: Bruce Lundegren, Small Business Administration  
Beth O'Quinn, Specialized Carriers & Rigging Association  
Michael Vlaming, Northern California Crane Operators  
Bill Smith, NBIS (NationsBuilders Insurance Services)