



The National Commission for the Certification of Crane Operators (NCCCO) recently surveyed CCO-certified operators who have been recertified three times—"three-star recertificants"—to find out what changes in the industry they've seen over their careers in the operator's seat. They were also asked what safety lessons they would pass along to less-experienced operators. While the operators surveyed averaged 31½ years of crane operating experience, CCO certification is good for five years so these operators were among the first to become CCO-certified and all been certified for at least 15 years. Survey questions were open-ended, so respondents could freely give their opinions without being restricted to a rating scale or predefined responses.

When asked what has been the biggest change in the industry over their careers, the most common responses reflected an improved concern for safety since they began operating cranes over a quarter century ago. Many respondents also mentioned that widespread addition of computers, electronics, and operator aids has greatly improved crane safety, although many gave the caveat that an over-reliance on operator aids can lead to complacency. Others noted the move away from friction cranes to hydraulics and increased lifting capacity while decreasing overall crane weight. All of this has led to, as one respondent observed, "The operator has more ability to control safe crane operations on the job site; management seems to be more interested in how the operator wants to make the lifts."

Lack of training and/or inexperience leading to operator error was cited by the most respondents as the cause of accidents and near misses with cranes. Others felt that time pressure, inattention to ground conditions, improper cribbing, and a lack of planning by management also contribute to a significant number of crane accidents. One respondent summed up the experience of most, saying:

Inexperience, lack of knowledge, and assumption are the three main causes of most crane accidents and near misses;

NCCCO has definitely covered all aspects of these deficiencies.

Crane safety devices—including load-moment indictors, overload protection warnings, anti-two blocking devices, and computers that display real-time data—were credited by most respondents as helping improve crane safety. Yet many warned that these operator aids only work if

operators are trained on their use and they are maintained properly. According to one respondent:

Manufactured safety devices, OSHA standards, ANSI standards, and NCCCO certifications all share an equally important part in the improved safety and production records in today's workplace.

As to what still needs to be done to make the industry safer, the overwhelming response was "more training," with many noting that other trades also need training so they understand cranes better. One respondent confirmed:

CCO is doing what needs to be done with the Signalperson and Rigging certifications [to educate the other trades]; I tip my hat to NCCCO!

Others would like to see more experience required before operators are allowed to operate cranes on their own. And, while most approve of the new licensing and/or certification requirements for operators, they also feel that the existing rules need to be enforced better. Finally, many also see room for improved site supervision and better understanding of ground conditions. One comment was "The crane owner and site supervision should be held more responsible for safe crane operations....For example, the site supervisor could come to the operator and mention that the winds are at 35 mph and we should shut down operations for now."

Most respondents felt that the new OSHA rules on cranes will have a great impact on crane and job site safety, but, again, rules are only good if they are implemented consistently and enforced. Many appreciate that the new rules spread responsibility to management, instead of placing full liability on operators. As one respondent noted:

The new OSHA rules should make operators and contractors work together better to keep lifting safe because everyone is more accountable.

Another observed, "I have seen a big difference in repairs because once it's written down it has to be repaired in a timely manner." Others noted that OSHA's new guid-

ance on power line clearance should greatly cut down on accidents and near misses.

When asked what advice they would give to new crane operators just starting out, most responses broke down along the lines of "get all the training you can get," "find an experienced mentor," and "remember safety first." Others gave warnings such as:

Don't ever let time pressure, peer pressure, distractions, or employer pressure compromise operating cranes safely.

In short, they encouraged new operators to know their limits and not be afraid to ask more experienced operators.

These operators have all seen their share of change in the industry over the past 20–40 years, with most citing increased safety awareness and the increased complexity of the cranes themselves as the biggest changes. As one commented:

Safety used to be an afterthought; now it is the most important aspect of any construction project.

And, regarding the changes to the cranes, another noted, "When I started we learned by the seat of our pants; now with heavier lifts and lighter cranes, you must learn the specifics for each crane." A third respondent summed it up, saying "When government agencies, companies, clients, and operators all share the same goals, a positive change has been obtained."

An overwhelming majority called for better pay and benefits as the most important factor in attracting more people into the industry. Others suggested that a still safer working environment would help and proactively reaching out to students to give them an opportunity to experience what it's like to operate a crane would also help. In short, "Get them 'hooked' at a young age." Yet, as one observed:

Companies must realize the responsibility given to operators and compensate them for that. People's lives are at stake.

Finally, most of the surveyed operators explained that they got started in the industry because their fathers or other family members were crane operators, or because they got involved with a union apprentice program.

Others waxed philosophically, with one stating that he got involved because:

The idea of building things that will outlast me and benefit society along the way gives me a sense of accomplishment and great personal reward.

Similarly, another stated, "I believed that operating a crane was something that I could do that would satisfy my need to see some type of accomplishment at the end of the day."

Overall, the common responses to the survey's openended questions that are summarized above show significant consistency in these operators' experiences. These repeated themes also confirm that the CCO certification programs—as well as improved technology and a heightened focus on jobsite safety—have all played key roles in improving crane safety.

About the survey

This survey was conducted in the fall of 2011 among 357 CCO-certified crane operators who had all recertified three times over the last 15 years. These operators were invited to participate in the survey via email and responses were recorded via both paper forms and an online survey tool. All questions were open-ended and required the respondents to answer in their own words.

The survey questions were:

- 1. What has been the biggest change you have seen in the industry?
- 2. What in your opinion causes most of the accidents and near misses with cranes?
- 3. Have crane safety devices helped? If so, how?
- 4. What still needs to be done to make the industry safer?
- 5. Are new the OSHA rules on cranes a good idea? If so, what do you think they will do?
- 6. What advice would you give a crane operator just starting out?
- 7. How is industry different than when you started?
- 8. What could be done to attract more people into the industry?
- 9. How did you get started in the industry?
- 10. How many years have you been operating cranes?

