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Nebraska Building Chapter-AGC: GC & SC Safety Roundtable

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# **AGC OSHA Regulatory Update & CSEA Best Practices**

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## Overview

- Cranes & Derricks: Operator Qualification
- Silica Table 1 Request for Information (RFI)
- Personal Protective Equipment (PPE) Fit
- Heat Legislation
- CSEA Best Practices

# Cranes & Derricks in Construction: Operator Qualification



## Subpart CC—Cranes and Derricks in Construction

- Required certification by type and capacity and retained employer duty

## Post-Rulemaking Concerns

- Industry stakeholders said certification by capacity unnecessary and employer should play role in operator competency
- OSHA reached out to industry to gather information

## Operator Qualification Rulemaking

- Proposed rule published on May 18, 2018
- Final Rule published on [November 9, 2018](#)

# Cranes & Derricks in Construction: Operator Qualification



## General Requirements

- Employers must ensure operators are trained, certified/licensed, and evaluated
- Any operator not certified/licensed and evaluated is an operator-in-training
- Operators of derricks, sideboom cranes, and equipment less than 2000 lbs. are excluded
- US military employees with qualifications from the military meet these requirements

# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(b) Operator Training

- Employers must provide training to operators-in-training to ensure they have the skills, knowledge, and ability to recognize and avert risk necessary to operate the equipment safely for assigned work
- Must instruct operators-in-training on the knowledge and skills in 1427(j)(1) and (2)
- Operators-in-training must be continuously monitored

# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(b) Operator Training

- Employers may only assign tasks within the operator-in-training's ability
- **Only a certified operator-in-training can:**
  - Operate within 20 feet of a power line that is up to 350 kV
  - Operate 50 feet of a power line over 350 kV
  - Hoist personnel
  - Perform multiple-equipment lifts
  - Operate over a shaft, cofferdam, on in a tank farm.
  - Perform multiple-lift rigging operations, except where the trainer determines the OITs skills are sufficient

# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(b) Operator Training

### The trainer must:

- Be an employee or agent of the operator-in-training's employer
- Have the knowledge, training, and experience necessary to direct the operator-in-training on equipment use
- Perform no tasks that detract from their ability to monitor the operator-in-training.
- Communicate verbally or with hand signals

# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(b) Operator Training

### The trainer must:

- Monitor the operator in training at all times except for breaks that:
  - Are no longer than 15 minutes
  - Are not more frequent than one break per hour.
- The trainer must inform the operator-in-training of specific tasks to perform during the break
- The specific tasks must be within the operator-in-training's abilities
- Operators must be retrained when the operators performance or knowledge indicates it is necessary



# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(d) Operator Testing Organization

- For OSHA to consider an accredited testing organization certification to be valid, the organization must:
  - Be accredited.
  - Administer tests based on the knowledge and skills in 1427(j)(1) and (2).
  - Provide certification based on **type, or type and capacity.**
  - Have recertification procedures
  - Have its accreditation reviewed every three years
- If there is no certification available for a type of equipment, the operator must be certified on the most similar equipment
- A certification issued by an accredited testing organization is valid for five years

# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(f) Evaluation

- The employer must evaluate an operator to ensure
  - They have the skills, knowledge, and ability to recognize and avert risk, necessary to operate the equipment safely
  - They have the ability to perform hoisting activities for assigned work
- The evaluation must be conducted by an individual who has the knowledge, training, and experience necessary to assess equipment operators
- The evaluator must be an employee or agent of the employer

# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(f) Evaluation

- The employer may allow the operator to operate other equipment of the same type that the employer can demonstrate does not require substantially different skills, knowledge, or ability to recognize and avert risk
- For operators employed prior to December 10, 2018, the employer may rely on its previous assessments of the operator instead of conducting a new evaluation

# Cranes & Derricks in Construction: Operator Qualification



## 1926.1427(f) Evaluation

- The employer must document the evaluation with the:
  - The operator's name
  - Evaluator's name and signature
  - Date
  - Make, model, and configuration of the equipment used in the evaluation
- The documentation must be available at the worksite
- If an operator must be retrained, they must also be reevaluated.

# Silica Request for Information (RFI)



- Published in the Federal Register on August 15, 2019
- OSHA is requesting information on:
  - The effectiveness of engineering and work practice control methods not currently included for the tasks and equipment listed on Table 1.
  - Information on tasks and equipment involving exposure to respirable crystalline silica that are not currently listed on Table 1
  - Information on the effectiveness of engineering and work practice control methods in limiting worker exposure to respirable crystalline silica when performing those tasks.

# Silica Request for Information (RFI)



## Additional Exposure Control Methods for Equipment or Tasks Listed on Table 1

- Stationary masonry saws
- Handheld power saws (any blade diameter)
- Walk-behind saws (including soft cut saws)
- Drivable saws
- Rig-mounted core saws or drills
- Handheld and stand-mounted drills (including impact and rotary hammer drills)
- Dowel drilling rigs for concrete
- Jackhammers and handheld powered chipping tools
- Walk-behind milling machines and floor grinders
- Any other exposure control methods that you believe should be included for equipment or tasks listed on Table 1.

# Silica Request for Information (RFI)



## Additional Equipment or Tasks to Include on Table 1

- Commercially available dust collection systems for power sanders (e.g., belt sanders, orbital sanders)
- Commercially available dust collection systems for power paint scrapers
- Commercially available hoods with dust collection systems for reciprocating saws
- Integrated water delivery systems for wire saws
- Wet methods, commercially available dust collection systems, commercially available dust suppression compounds, or work practices that minimize generation of dust for clean-up tasks, including changing or cleaning filters in dust collection systems

# Personal Protective Equipment (PPE) Fit



## Background

- Request for Information (RFI) on Standards Improvement Project IV (SIP-IV) published on December 6, 2012.
- Received comments from stakeholders asking OSHA to ensure PPE fits construction employees.
- SIP-IV NPRM, published October 4, 2016, proposed adding an explicit requirement for PPE used in construction to fit.
- Proper fit of PPE implicitly required for “adequacy” and “safe design.”
- Proposed regulatory text similar to existing language in general industry and maritime.



# Personal Protective Equipment (PPE) Fit



## Background

- OSHA received four comments on the proposed language:
  - Two supported the language.
  - Another supported the language with caveats.
  - The fourth opposed the language, concluding that the proposed language required a rulemaking with a larger scope than SIP-IV.
- OSHA withdrew the proposed language from SIP-IV to propose it in another NPRM.

# Personal Protective Equipment (PPE) Fit



## Current language in the standard at 1926.95(c):

"Design." All personal protective equipment shall be of safe design and construction for the work to be performed.

## Proposed regulatory text from NPRM for 1926.95(c)

- (c) Design and selection. Employers must ensure that all personal protective equipment:
- (1) Is of safe design and construction for the work to be performed; and
  - (2) Is selected to ensure that it properly fits each affected employee.

# Personal Protective Equipment (PPE) Fit



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## Mirroring General Industry Requirements

Proposed regulatory text from NPRM for 1926.95(c):

(c) **Design and selection.** Employers must ensure that all personal protective equipment:

- (1) Is of safe design and construction for the work to be performed; and
- (2) Is selected to ensure that it properly fits each affected employee.

Existing regulatory text from general industry standard 1910.132(d)(1)(iii):

(d) **Hazard assessment and equipment selection.** (1) The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

- (iii) Select PPE that properly fits each affected employee.

# Personal Protective Equipment (PPE) Fit



## Rationale for Proposed Language

- Language currently exists in the general industry and maritime standards.
- OSHA has always had an implicit requirement that PPE in construction must fit to be “adequate” and of “safe design.”
- OSHA has included the importance of properly fitting PPE in several guidance materials for both general industry and construction.

# Heat Illness Prevention Legislation



- Seeks to direct OSHA to issue an occupational safety and health standard to protect workers from heat-related injuries and illnesses.
- The bill requires OSHA to introduce a proposed standard on the prevention of occupational exposure to excessive heat within 2 years from the date of enactment of the legislation.
- OSHA would then be required to issue a final standard within 42 months after the date of enactment.
- The final standard must provide no less protection than the most protective heat prevention standard adopted by an OSHA State-plan State.
- The final standard must also take into consideration the “NIOSH Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments” published in 2016
- Covered employers would be expected to develop, implement, and maintain heat illness prevention plans for covered employees, which must be tailored and specific to hazards in the workplace

# Heat Illness Prevention Legislation



## Elements of a Heat Illness Prevention Plan

- Procedures for initial and regular monitoring of employee exposure
- Provision of water, paid rest breaks, and access to shade or cool-down areas
- Emergency response
- Acclimatization
- Hazard prevention
- Annual training and education to covered employees who may be exposed to high heat levels and supervisors
- Each covered employer is also expected to adopt a policy prohibiting any person from discriminating or retaliating against any employee for exercising any rights under the standard

## **AGC/Willis Towers Watson Construction Safety Excellence Awards: Best Practices**

- Senior management ownership and participation
- Risk identification and analysis
- Task design - Engineering controls for safety
- Safe work methods (planning and validation of)
- Worker engagement, involvement and participation
- Safety training and validation of training
- Subcontractor management
- Emergency response and crisis management



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## Senior management ownership and participation

- 20% of company president's direct reports' performance reviews are based on the safety performance and metrics of their projects or business units.
- President every two weeks sends out a document called "Four Points", in which he communicates safety issues, gives accolades for safe working practices and mentions working safe.
- When significant incidents occur, the owners call for an immediate site stand down and attend the group meeting.
- We are now getting more and more involved in industry associations to help other contractors see the value in safety and to improve their programs.



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## Risk identification and analysis

- Project safety evaluations around a leadership checklist that measures collaboration, housekeeping, material storage / handling, pre-planning efforts, data collection (iScout / SafetyNet) and subcontractor engagement.
- Utilized a fleet GPS monitoring system to measure harsh braking, speed, evasive maneuvers and acceleration for company vehicles.
- Created weekly safety reports. Every Monday a report is emailed of the past week's incidents and near misses to the entire company, to continue the conversation around safety. These reports include a brief review of the incident followed by a "safety message" from the Corporate Safety Director that analyzes the incident and offers solutions for future prevention.

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## Task design – Engineering controls for safety

- Decibel readings of equipment are obtained frequently to assure personnel that the company “Hearing Loss Prevention Program” is working.
- Company invested heavily in Hydro-demolition equipment. This is a new way of performing demolition work. This process is quicker, uses less workhours and keeps the employees a safer distance from the demolition.
- Installed safety cables in the window openings of all wall panels prior to erection.
- Example of reducing worker injury exposure through sequence of work is having our plumbers install sleeves prior to the concrete slabs being poured. Installing sleeves beforehand eliminates the need to core through the concrete slabs later.

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## Safe work methods (planning and validation of)

- Task protocols, hazards, controls, PPE, equipment and housekeeping are written on a 4.5” x 8” “Pocket-Card” that is double-sided and laminated. Given to each employee or the team leader to have in a pocket while performing the task.
- “SharePoint” website that was obtained early 2017 to provide a way to have access to all company policies, forms, safety information, Safety Data Sheets, and plans, and job information. Everything imaginable that might be needed in the field is loaded in this website. Information is general and job-specific. Access for all employees 24/7.
- Pre-task planning that includes analyzing manpower, tools and equipment needed for the task(s) to assure proper identification of hazards and safety precautions are employed.

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## Worker engagement, involvement and participation

- Employees participate in the “Weekly Walk-around Safety Audit” where they give their perspective on site hazards observed and controls and processes to mitigate them. They give peer to peer input from spot inspections of the subs work and their equipment fitness.
- Provide our front-line leaders with the interpersonal skills to successfully practice empathetic accountability with their crews; “Empathetic Accountability” is the ability to hold others accountable to achieve results without making an enemy.
- Jobsite briefs are conducted three times per day; morning, mid-day and end-of-day. Each brief is similar in nature but unique providing the opportunity to focus on specific relative elements. The briefs allow us to plan our work (morning), address any changes in that plan or the work environment (midday) and recap the events of the day, as well as provide a message to take home to our families and communities (end-of-day).

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## Safety training and validation of training

- Employee safety orientation and other safety topics like tool operation, safety concepts and processes are trained by an “Alpha Dog”, who is anyone qualified to train on a specific subject because of their knowledge and experience.
- Safety “Flash Drives” were initiated in 2018. They are populated with all of the information that is on the company safety “SharePoint” site. They provide access when internet and data reception is not available.
- Implemented TEXO’s Safety First program on the project. The Safety First program was introduced to provide standardized safety information suitable for construction personnel at all levels. The safety culture on the project was very notable. The team worked diligently to create a safe and health conscious culture that resounded through every work activity.

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## Subcontractor management

- We have an open source policy on all our safety programs, testing and documents. We are willing to share our resources with other businesses at no cost and will sit down and mentor them while they develop their safety program.
- Subcontractor Site Specific Safe Start Program (5sp) – The 5sp document provides a condensed version of our policies/ procedures/ paperwork and OSHA VPP for subcontractor responsibility and accountability. Any site-specific safety items/hazards are included in the 5sp. The 5sp is the most efficient document for employee involvement and subcontractor participation.
- Subcontractor Prequalification was improved by developing a safety and risk potential scoring system. Lower scoring subs must have their president come in to discuss a corrective action plan before they perform work. Presidents discuss progress monthly. Used to help improve the subcontractors who show a genuine interest in improving their safety programs. It is also an internal tool to help make sure there is adequate safety monitoring of the subcontractors.

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## Emergency response and crisis management

- “Emergency and Crisis Management” plan has recently been re-designed to produce quicker and more effective results in the event of a crisis. The key change is a written plan that is not burdened with verbiage rather than with activity that may save a life, limb or property. Company has divided the plan into four parts.
- “Courage to Care” training to help provide leadership/supervision with practical tips whenever an employee is behaving suspicious or out of ordinary.
- “First Hour Response”. This is the action plan with an outline of the hierarchy of the response team, their responsibilities and team members and contact information for anyone needed to be involved. Each subordinate individual completes their “to-do” list and reports back to the Team leader.
- Potential crisis situations are formally reviewed each year. Some of the items covered are Active Shooter, possible heart attacks, suicide on the job, domestic problems brought to workplace and drugs in the workplace.

# Upcoming AGC Safety Events



- **AGC/Willis Towers Watson Construction Safety Excellence Awards**
  - Application Deadline: December 13, 2019
  - [www.agc.org/csea](http://www.agc.org/csea)
- **AGC Construction Safety & Health Conference**
  - January 15 – 17, 2020
  - Austin, TX
  - [www.meetings.agc.org/safety](http://www.meetings.agc.org/safety)





# Questions?