

Operator Certification

Final Rule Issued on November 7, 2018

- Requires Employers to ensure that each crane operator is trained, certified/licensed and evaluated.
 - Certification required by December 9, 2018
 - Evaluation and documentation required by February 7, 2019

HOW DID WE GET HERE !!



The C-DAC Proposal

- Acknowledged the qualification and training requirements of previous standards were ineffective.
- OSHA should require written and practical testing of crane operators.
- Significant advances in crane safety cannot be achieved without operator testing verified by accredited, third party testing.
- Requirement for operator certification by “*type and capacity*” of the equipment in lieu of general requirements that employers ensure their operator are competent to run the equipment.



2010 Crane/Derrick Final Rule

- Four options for crane operator certification
 - State or Local License to operate cranes within a state or local jurisdiction (With acceptable requirements)
 - Qualification issued under an audited employer program meeting OSHA's certification.
 - Qualification issued by the U.S. Military.
 - Qualification issued by an accredited, third-party testing organization that meets OSHA certification requirements.

Which one is PORTABLE ? (A new employer can rely on it)

Certification takes effect in 2014 to give time for employers to become compliant.




The Testing Agencies

Accredited by OSHA

- NCCCO (National Commission for the Certification of Crane Operators)
- NCCER (National Center for Construction Education and Research)
- CIC (Crane Institute of America Certification)
- OECP (Operating Engineers Certification Program)

Agencies response to not specifying Rated lifting capacities on their certifications.


- Questioned the need for supplying rated capacities to comply with the new standard.
- Would require significant changes to their existing certification practices without resulting in any real safety benefit.
- Employers will take the steps to make sure operators are capable of safely operating cranes, regardless of their capacity.



2012 ACCSH Meeting


- One testing agency announces that if hundreds of thousands of certifications issued without capacity listed are no longer valid, imminent disruption of the entire construction industry will ensue.
- Employers concerned that employee certifications will be recognized as valid by the November 2014 deadline.
- In response, during early 2013, OSHA conducted three stakeholders meetings to gather information about the issues of operator certification.

OSHA extends the deadline for operator certification for 3 years until November 9, 2017 to provide them additional time to determine if additional rulemaking regarding crane operator competency is required.



Stakeholders Meetings 2013-2015

- Most employers value a third party certification but don't treat it as sufficient, by itself, to establish competency.
- Would not let an operator run their crane based solely on their possession of an card.
- Operators certification verifies basic knowledge such as:
 - Reading load charts
 - Recognizing crane hazards
 - Inspecting the equipment
 - Knowledge of regulations
 - Familiarity with basic crane functions to control the crane.
- Evaluation of the operator is ongoing from the time they begin by observing them operate the equipment.
- Evaluation is also based on the often daily informal evaluations of their performance by other people that work around the crane.




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The Qualification Process, 2018

- Employer must complete three steps before permitting operator to run the crane:
 - Trained to do the activities that will be performed.
 - Be Certified/Licensed as required in part CC
 - Be Evaluated by the employer on their competence to safely operate the crane that will be used.

Exceptions:

- Operators of side boom cranes and equipment with a maximum manufacturer-rated hoisting/lifting capacity of 2,000 pounds or less.
- Qualification by the US Military for a crane operator whose employer is the Department of Defense Armed Forces.



Operator Training, Uncertified Candidate


- Formal and Practical Instruction
- Both task and equipment specific

Formal Instruction

- Controls/performance characteristics
- Load charts/ capacity calculations
- Responding to powerline contact
- Technical knowledge contained in appendix C of this part. (Operator Certification Test)

Practical Instruction

- Operational and Maneuvering Skills
- Application of Load Chart Information
- Safe Shut down and securing procedures




Operator Training, Uncertified Candidate

Operator-In-Training

- Must be continually monitored by trainer.
- Direct Line of sight and verbal or hand signals. *(No Line of Sight for Tower Cranes)*
- Cannot do any of the following until Certified:
 - Man Basket work
 - Multiple Equipment Lift
 - Work over a Shaft, Cofferdam or Tank Farm
 - Within 20 feet of power line. *(Any part of crane at Max Radius)*
- Short breaks allowed. Max 15 Minutes no more that 1 per hour


Trainer

- Has Knowledge, training and experience necessary.
- Certification Not Required. Not recommended



Operator Training - *Certified Candidate*


- Permits Certified/Licensed to operate equipment as operators-in-training before successfully completing an evaluation.
- Allows experienced/certified operators to become accustomed to performing new crane operations or operating somewhat different equipment while being evaluated by the employer for that purpose.
- It also allows a newly hired operator to run the equipment while an employer gauges the operators knowledge, operating skills and training needs.



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Operator Certification/Licensing


- Certification Criteria Unchanged
- Options:
 - Accredited Crane Operator Testing Organization
 - Audited Employer Program
 - State or Local Government License
- Certification is supplied at no cost to employees
- Certification by Type or Type and Capacity



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Operator Evaluation

- Employers must evaluate their operators for:
 - Ability to safely perform the work.
 - Skills, knowledge and ability to recognize and avert risks for safe operation of the equipment being used.



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When to Evaluate an Operator

- Beginning Feb 2019, all operators must be evaluated by their employer for the skills necessary to operate the crane on the job safely while performing the assigned work.
- For employees already employed prior to February 2019, the rule allows the employer to rely on its previous assessment in lieu of conducting a new evaluation.
- Employer cannot rely of recommendations or evaluations from a previous employer



What Do I Evaluate?

- The operators skills and ability running that crane doing that job.
- Various aspects such as:
 - Safety devices
 - Operational Aids
 - Software
 - Size and Configuration of Equipment
- Tasks such as:
 - Blind Lifts
 - Personnel Hoisting
 - Multi-Crane Lifts



What Do I Evaluate?

- The standard does not require operators to be evaluated on "every possible crane configuration" or "every different task"
- OSHA's intent is that the employer identify substantive differences that require *new* skills, knowledge or abilities.
 - No need to re-evaluate lifting a bundle of timber because operator already demonstrated lifting a bundle of steel.
- If operator demonstrates ability to safely operate a large crane in a relatively complex configuration, no need to re-evaluate if operating a smaller crane of the same type and operating system with say a shorter boom.
- Permits the employer to allow an operator to run other equipment other than the specific equipment on which they were evaluated on, provided the employer can demonstrate the new equipment or task does not require different skills. In this case there would be no need for another evaluation.



Who Can Evaluate?

The evaluation must be conducted by an individual who possesses the knowledge, training and experience necessary to assess operators. This person must be an employee or agent of the employer.

Some Examples from the Final Rule:

- Current or former operator
- Authorized Examiner
- Experienced Riggers
- Maintenance Personnel
- Signalperson
- Tradesperson
- Manager or Foreman



Who Can Evaluate?

OSHA is not requiring that evaluators be certified or have previous experience as an operator. While it might be helpful, C-DAC did not recommend either for trainers and OSHA is not requiring it in the final rule. Its not necessary to hold evaluators to a higher standard that C-DAC recommended for trainers.

That being said , pick your evaluators wisely. Think of that person who evaluated an operator being interviewed by OSHA after an incident occurred.



Documentation

- The documentation must include the operators name, the evaluators name, the date of the evaluation and the make, model and configuration of the equipment on which the operator was evaluated.
- Must be available at the job site
- The documentation would not need to be in any particular format. Employers have the flexibility to capture this information that best meets the need of their workplace.
- Examples given:
 - Issue operator cards
 - Electronic records accessible at the work place.
 - Machine logs



Documentation

- The rule does not include any requirement that an operator must sit in the cab of each crane the company owns to be evaluated and documented as competent.
- The process of recording the specific information about the crane(s) in which the operator was evaluated (including the make, model, and configuration of the equipment) helps to *avoid* additional evaluations.
- The required documentation provides the baseline against which the employer can determine whether particular equipment used on future projects can be safely operated by that operator because it would not require substantially new skills, knowledge, or abilities.



Operator Retraining

- The need for operator retraining is triggered when through performance or evaluation, there is an indication that retraining is necessary.
 - OSHA Citation
 - Incident or Near Miss
 - Comments from the jobsite
- Retraining also triggers the requirement for a re-evaluation.



Putting It All Together

- For the purpose of operator evaluations, multiple crane owners/users must have a system to identify similarities and differences in cranes.
- Equipment "type" is critical when delineating knowledge and skill.
- Equipment Manufacturer determines like and unlike systems such as software, control layout and safety devices and operator aids.
- Model helps to establish commonality within a manufacturer's product line.
- Capacity will always be a factor in how complex the equipment is to operate.
- Configuration and task.



Equipment by Manufacturer

- The manufacturer ultimately decides the software control system, instrumentation and control layout and the operator aid functionality.
- The cabs of a Liebherr, Grove and Linkbelt Cranes look different. While they still have common features the method of controlling them can be quite different.
- An qualified operator of a Grove 550 Ton AT crane would have initial difficulty running a Liebherr 550 Ton AT because of these differences. The operator is no less qualified but the controls and software do work differently.
- Very much like the feeling when you first get into a strange car, the basics are the same but it takes a little time to get used to it.



Equipment Model Numbers

- The model number can help the employer to determine if a different evaluation is required.
- If the model does not require substantially different skills, knowledge or abilities to identify and avert risk, a new evaluation is not required.
- Example, Linkbelt truck cranes range from 50 to 110 tons. All of these crane models operate the same therefore per the standard one evaluation on one model, say the HTC 8690 is also good for the HTC 8650 crane.



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Equipment Capacity

- Capacity always determines the complexity of the equipment.
- A 500 ton AT will require different skills than a 125 Ton AT.
- If operator demonstrates ability to safely operate a large crane in a relatively complex configuration, no need to re-evaluate if operating a smaller crane of the same type and operating system with say a shorter boom or less capacity.




Equipment Configuration and task

Configuration

- Jib, Luffing jib, super lift, wagon. All of these will require additional skills and knowledge.
- Once evaluated on these complex configurations, transitioning to other equipment types and manufacturers with similar configurations will usually not require addition evaluation.


Tasks

- The types of lifts mentioned in the standard; blind lifts, personnel hoisting, multi crane lifts: is not exclusive but provides examples of lifts for which an employer must evaluate the operators ability.
- Again similar to the configuration, once the operator has demonstrated they have the skills, re-evaluation may not be required.




Evaluations

- Information to be collected:
 - Operators Name
 - Evaluators Name
 - Evaluators Signature
 - Date of the evaluation
 - Crane Type
 - Crane Make
 - Crane Model
 - Crane Tonnage (Capacity)
 - Special Configuration
 - Special Task



Sample Evaluation Listing



Operator Evaluation Documentation

The operator listed below has demonstrated the necessary skills, knowledge and ability necessary to operate the equipment safely including their specific safety devices and operational aids. This initial assessment has taken place over the period the operator was actively employed by Massm Crane Works prior to December 2018.

Based on OSHA guidelines, the assessment is grouped first by equipment type, then by manufacturer and the size of the crane. The equipment category and Manufacturer are key elements that establish commonality within brands. The crane tonnage establishes the complexity of the equipment. An operator who has demonstrated proficiency in a larger crane type and manufacturer is qualified for a smaller model as long as its within the same category and manufacturer group.

Operator Name	Crane Type	Make	Tonnage	Model
HOWARD W. LEANDER D.	ALL TERRAIN CRANE	Demag	330	AC300
		Greiner	60	GAK3005
			165	GAK3165/130-1
			275	GAK3275
	HYDRAULIC TRUCK CRANE	Demag	60	AC135
ROUGH TERRAIN		Greiner	30	RT3006
			30	RT3006
			30	RT3006

Equipment Type	Make	Model	Size (Tonnage)	Configuration	Task
All Terrain	Greiner	GAK7500	500+ip	Luffing Jib	Standard Lifting
Operator	Evaluator	Evaluation Date			
Howard W. Leander D.	John Merrill	02/25/2019			

