

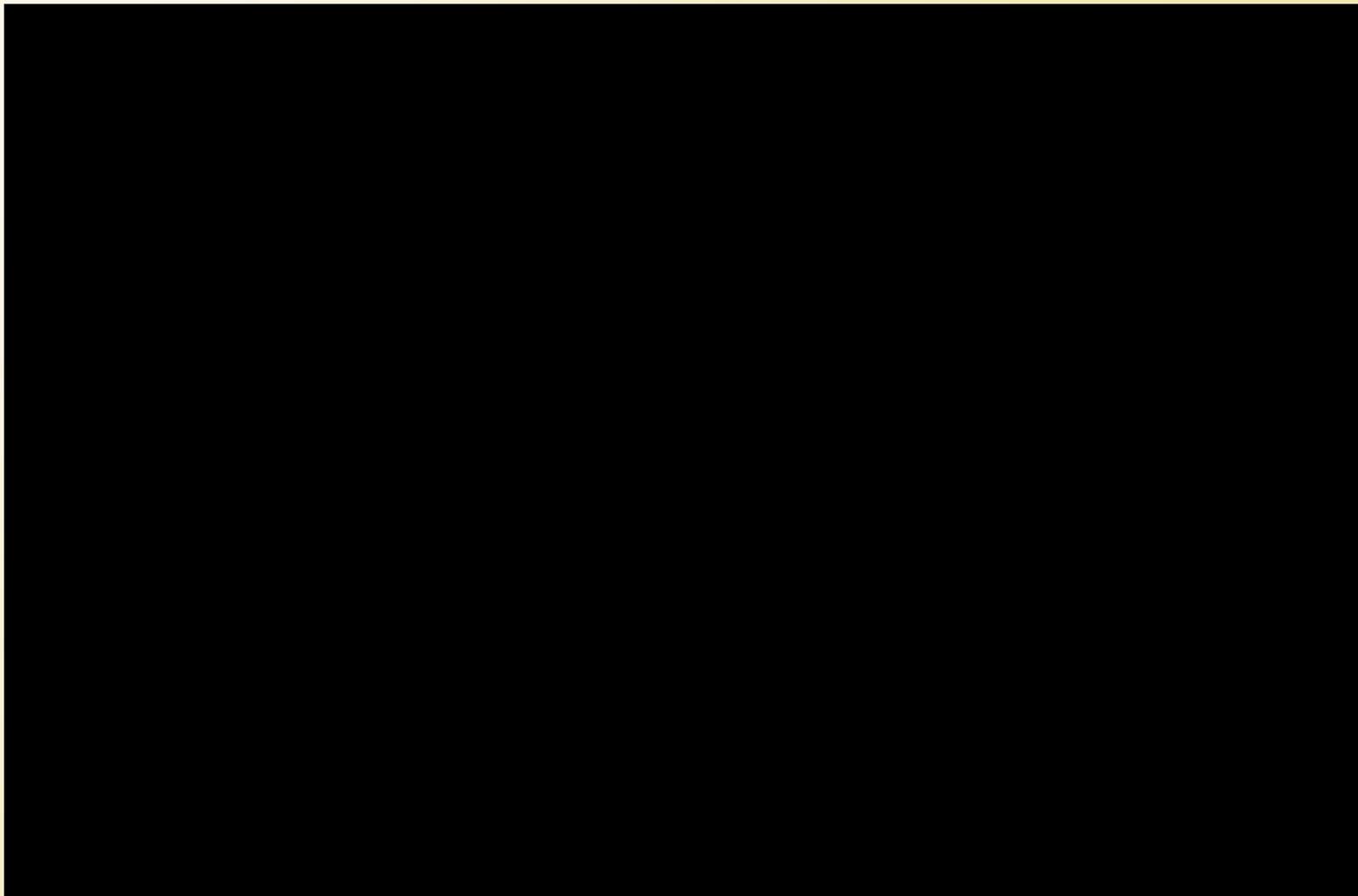


CONSTRUCTION RISK MITIGATION THROUGH CONFORMITY ASSESSMENT

Graham Brent, *Chief Executive Officer*

National Commission for the Certification of
Crane Operators (NCCCO)

*World Standards Week
ANSI-SPRING Services Conference
October 18, 2017*





Key Concepts

- Construction is inherently “risky”
- Property and people are the ones at risk
- Inadequate risk mitigation = accidents and incidents
- NCCCO born out of a grass-roots initiative
- **Conformity assessment** was (is) core element of initiative: certification and accreditation

Construction in the '80s



- Personnel certification an “alien” concept
- No history of third-party evaluation
- ANSI (B30) & OSHA standards light on detail
- No federal requirement; 5 states had rules
- No pathway to compliance
- Lip service to personnel competency assessment widespread

ANSI Accreditation to ISO 17024



**ISO/IEC 17024
Personnel Certification Body
#0756**

**Mobile, Tower, Overhead,
Articulating, and Service Truck
Crane Operator, Digger Derrick
Operator, Signalperson,
Rigger Level I and Level II,
Crane Inspector, and Lift Director
Programs Accredited**

Where's the Value?



- Established credibility
 - Market
 - Employer adoption
 - Project owners requirement
 - Insurance industry approval
 - Industry membership associations endorsements
 - Federal/State/Local Jurisdictions
 - OSHA recognition
 - State adoption
- Redefined “Certification” for the Industry
- Distinguished it from Training

Industry Recognition



ACCNA
AN INDUSTRY DIVISION OF THE
National Truck Equipment Association



ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS



SC&RA
Specialized
Carriers
& Rigging
Association



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OSHA Signs Agreement with CCO National Crane Operator Certification Program Recognized

WASHINGTON, DC, FEBRUARY 26, 1999 - The Occupational Safety and Health Administration (OSHA) and the National Commission for the Certification of Crane Operators (NCCCO) signed an Agreement today officially recognizing the CCO national crane operator certification program.

The Agreement marks the first time OSHA has recognized a private sector industry group as meeting its requirements for crane operator qualifications, and it provides significant through-crane operator who have their operators certified through the national CCO program. There is currently no federal requirement for crane operators to be licensed.

"From my personal experience, [crane operator certification] is very much needed," said Assistant Secretary of Labor for OSHA, Charles N. Jeffress. "It's very important to make sure that the folks handling this equipment be well trained."

With the development of the CCO national crane operator program, Jeffress said, OSHA was now able to say to contractors "we require your folks be trained and if you can show us that if they have this certification from the Commission then we will accept your word that they are trained."

Jeffress said that OSHA had been striving to find ways to help us reduce the number of accidents that occur with mobile cranes, helping to achieve our overall goal of a 15% reduction in construction industry fatalities by the year 2002. Assistant Secretary of Labor for OSHA, Charles N. Jeffress, signs the OSHA/CCO Agreement while Russell Bruce Swanson, Director of OSHA's Directorate of Construction looks on.

did not. "Frankly, some folks had to swallow real hard with this concept because, when you certify people, not everybody is going to pass the test," Swanson said. "But we have to look beyond that and see that the requirement for certification will cause people to get the training that is necessary to make the job site safer."

The Signing Ceremony, held at the Department of Labor in Washington, DC, was witnessed by senior representatives from many sectors of industry in what was described by Swanson as "an impressive show of support" by labor and management, union as well as open shop firms and organizations, and other government departments.

"This is a great day for crane safety," said CCO President, Davis J. Laue, President of Nichols Construction Corporation, Baton Rouge, Louisiana. "OSHA's recognition of the CCO crane operator certification program should have a significant and sustained impact on the safety of all who work with or around cranes."

The signing of this Agreement is also a tribute to the dedication of the hundreds of volunteers from all sectors of industry who have worked long and hard over the last 12 years to form the dream of a national crane operator certification program into reality," Laue added.

General President of the International Union of Engineers, Frank Hanley said, "This will go down as one of the best things we have ever done in the field of safe construction. We wanted strength by all sectors of industry. We wanted support by all sectors of industry. I think you will all be proud." he said. "I think you will all be proud that you will be able to say, 'I was part of it'."

The requirement for certification will cause people to get the training that is necessary to make the job site safer. With our goal to reduce fatalities in the construction industry by 15% by 2002, I would see this Agreement as a real important building block along that road."

One of the strengths of the CCO certification program was that it separated those who had the necessary knowledge and skills from those who



Assistant Secretary of Labor for OSHA, Charles N. Jeffress. OSHA is now able to say to contractors "we require your folks be trained and if you can show us that if they have this certification from the Commission then we will accept your word that they are trained."



The Agreement Between OSHA and CCO: What Does it Mean?

The Agreement is "a voluntary cooperative action between representatives of the crane industry and OSHA to recognize crane operator certification issued by the Certification of Crane Operators, NCCCO."

The ability of crane operators to safely operate mobile cranes plays a major role in overall safety on most construction sites. The Agreement provides a non-regulatory means of recognizing the CCO program as

validating the competency and verifying the qualifications of crane operators.

What benefits does the Agreement provide for employers adopting the CCO program?

- OSHA compliance safety and health officials when performing inspections or accident investigations, will recognize CCO certification as verification of crane operator qualifications.
- The presence of CCO certified crane operators on a job site will

be an indicator to compliance officers that the crane is being operated by someone with demonstrated knowledge and ability.

- The requirement for CCO certified crane operators on a project will be an indication of the contractor's commitment to an effective safety and health program, and contribute to project's qualification for "forward inspection."

U.S. Department of Labor

Assistant Secretary for Occupational Safety and Health Washington, D.C. 20210

VOLUNTARY AGREEMENT

February 26, 1999



BETWEEN THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND THE NATIONAL COMMISSION FOR THE CERTIFICATION OF CRANE OPERATORS

This Statement of Agreement describes a voluntary cooperative action between representatives of the crane industry and OSHA to recognize crane operator certification issued by the National Commission for the Certification of Crane Operators, NCCCO. The NCCCO has been accredited by the National Commission for Certifying Agencies (NCCA). NCCCO certification is based on criteria that will contribute to our mutual goal of reducing the number of deaths and injuries resulting from crane related accidents. The ability of crane operators to safely operate mobile cranes plays a major role in overall safety on most construction sites. An accredited certification program that attests to the qualifications and experience of crane operators will provide employers and OSHA with a valuable tool in determining if crane operators are "qualified" to perform their tasks. The execution of this agreement with the NCCCO should have an immediate, significant and beneficial impact on safe crane operations.

I. PURPOSE:

The purpose of this agreement is to provide a **non-regulatory** means of recognizing a program that validates the competency and certifies the qualifications of crane operators. NCCCO has developed a validated certification program which meets the requirements of ANSI/ASME B30.5 (American National Standards Institute/ American Society of Mechanical Engineers) as referenced by 29 CFR 1926. 550 (a)(1) and (b)(2).

Establishment of a crane operator certification program through the joint efforts of the lifting industry and labor is an important step forward in promoting the common goal of safe crane operations. As this certification program becomes more widely used, education and training will become primary factors in developing and maintaining qualified crane operators in the construction industry. Certification will become the natural progression in crane operators' careers as they gain more education, training and experience working with the multitude of equipment in use today and the increasingly more advanced cranes of the future.

OSHA Recognizes Accredited Personnel Certification



“An accredited certification program that attests to the qualifications and experience of crane operators will provide employers and OSHA with a valuable tool in determining if crane operators are “qualified” to perform their tasks.”

*“The benefit to the employer is that the presence of NCCCO certified crane operators on a job site will be an indicator to [OSHA] compliance officers that the crane(s) is being operated by someone with **demonstrated knowledge and ability.**”*

*“The execution of this agreement with NCCCO should have an immediate, **significant and beneficial impact on safe crane operations.**”*

Voluntary Agreement between OSHA and NCCCO signed February 26, 1999

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The Ultimate Test: Does it Work?



How to determine?

- Program Growth
- Follow the Data
- State Reports
- Insurance Position
- Survey Employers
- Poll Certificants



By the Numbers



- 150,000 individuals certified since inception
- 90,000 currently certified
- More than 350,000 certifications issued
- 1,000,000 written + practical tests administered
- 120+ training firms nationwide (unaffiliated)

The Ultimate Test: Does it Work?



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The Canadian Experience



Ontario Crane-Related Deaths

	<i>no.</i>	<i>/year</i>	<i>/100k workers</i>
• 1969-1978	85	8.5	3.95
• 1979-2002	51	2.1	0.76

- Death Rate **down 80%**



- Crane and rigging accidents as % of all construction accidents **down 50%**



The California Experience



CRANE ACCIDENTS, June '02-'05 vs. June '05-'08

FATAL ACCIDENTS	'02-'05	'05-'08	
• High-Voltage line contacts	5	1	
• Struck by Loads	4	0	
• Mobile Cranes Overturned	1	1	
• <u>Total Cases</u>	10	2	80% decrease



NON-FATAL ACCIDENTS	'02-'05	'05-'08	
• High Voltage Line Contact	7	4	
• Struck by Loads	18	3	
• Mobile Cranes Overturned	5	6	
• <u>Total Cases</u>	30	13	57% decrease



The Ultimate Test: Does it Work?



How to determine?

- Program Growth
- Case Studies
- State Reports
- Insurance Position
- Survey Employers
- Poll Certificants



Insurance Industry



The Ultimate Test: Does it Work?



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Case Studies



- Large General Contractor (north-west):
 - Crane operators CCO-certified: 350
 - *“To have qualified operators in the seat before making a lift **reduces our risk** tremendously. CCO certification has helped us **reduce our crane incidents by 31%** in one year.”*
- Large General Contractor (south):
 - Crane operators CCO-certified: 206
 - *“By requiring CCO certification for all operators, we **decreased our crane incident cost by 80%** in the first year of implementation.”*

Case Studies



- Large crane rental company (north-east):
 - Crane operators CCO-certified: 365
 - *“Having nearly 100% of our operators CCO certified has given our customers **a high level of confidence** in our employees’ abilities to get the job done and get it done safely.”*
- Large general contractor (Gulf states):
 - Crane operators CCO-certified: 125
 - *“**By saving money on costly crane accidents**, we have been able to spend money on the purchase of new equipment.”*

The Ultimate Test: Does it Work?



How to determine?

- Program Growth
- Case Studies
- State Reports
- Insurance Position
- Survey Employers
- Poll Certificants



“CCO has helped me do my job”



*“By staying certified it helps to keep me aware of the **industry standards** and regulations.”*

*“The ability to quickly decipher **load charts** for any type of crane.”*

*“Anybody can hop on a crane and start operating but to **do it safe** and know the fundamentals means going to school and learning the do's and don'ts of operating.”*

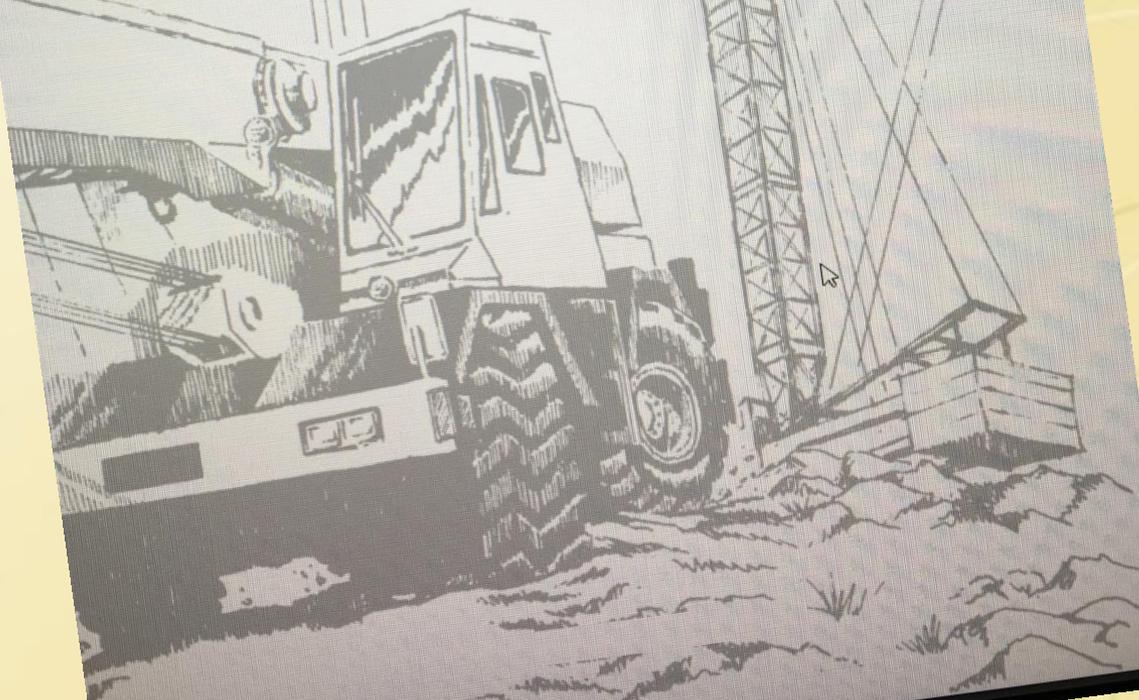




NATIONAL COMMISSION FOR THE
CERTIFICATION OF CRANE OPERATORS (NCCCO)

Three Decades of Experience:

An NCCCO Survey of Three-Time Recertificants



3X SURVEY REV 04/12



Survey Three-Time Recertificants



Certification has . . .

- made me a “safer operator” **87%**
- helped me “do my job better” **86%**
- made me “more professional” **89%**



“CCO has made me a safer operator”



*“It has made me **more professional** even though I have been operating cranes for 42 years.”*

*“I'm **more aware of power lines**, outrigger pad setup, cribbing; just basically more aware of the hidden dangers.”*

*“I feel that my ability to read and understand **load charts** has improved, and I've learned the **importance of crane safety**.”*

*“I can foresee—and stop—likely safety problems **before someone is hurt**.”*





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GROY



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Other Observations



- Limitations of Conformity Assessment
 - “Tool in the Toolbox” *not* Panacea
- Collateral benefits
 - Engaging future workforce



Engaging the Next Generation



National Commission for the Certification of Crane Operators

NCCCO Mission:

To develop effective performance standards for those who work in and around cranes; provide fair, valid, and reliable assessments of the knowledge, skills, and abilities of crane operators; and act as an authoritative industry resource of information.

CCO Certification Programs:

- Crane Operator
- Crane Operator
- Overhead Crane Operator
- Crane Operator



Filling the Skills Gap



**Lift &
MoveUSA**

A world of job opportunities

The logo for Lift & Move USA features a stylized 'M' composed of several overlapping geometric shapes in shades of blue, green, and purple. To the right of the 'M' is the text "Lift & MoveUSA" in a bold, sans-serif font, with "Lift &" in black and "MoveUSA" in blue. Below the main text is the tagline "A world of job opportunities" in a smaller, black font.