



PRIVATE SECTOR PARTICIPATION IN U.S. STANDARDS AND REGULATIONS

Two Case Studies from the U.S.

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National Commission for the Certification of Crane Operators
(NCCCO)

Standards and Conformity Assessment Workshop

Maputo, Mozambique

3 December 2018



Two Case Studies

- **Initiative No. 1:**
 - Originating in the **Industry/Private Sector** (and later adopted by Government)
- **Initiative No. 2:**
 - Originating in **Federal Government** at the *request* of **Industry**, developed by both, and then enshrined into federal regulations



Who is NCCCO?

- NCCCO formed in January 1995
- Created *by* the U.S. construction industry to provide personnel certifications *for* the industry
- Independent, non-profit 501(c)6 (NGO) organization
- Certification body that does NOT provide training
- Largest and most recognized certification body for construction professionals in the U.S.
- Volunteer-driven, managed by a staff of 60 with headquarters close to Washington, DC

Who is NCCCO?



OUR MISSION

To develop effective performance standards for those who work in and around cranes; provide fair, valid and reliable assessments of their knowledge and skill; and act as an authoritative industry resource of related information.

Committed to Quality, Integrity, and Fairness in Testing Since 1995

Who is NCCCO?



OUR VISION

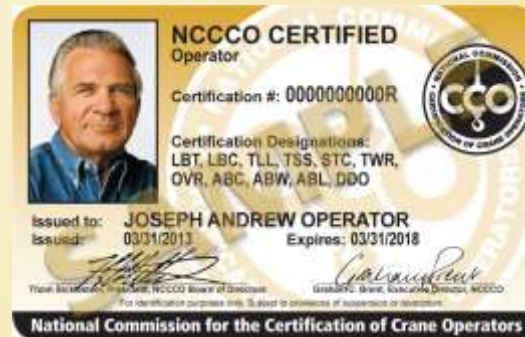
A global lifting environment in which crane and crane-related risks are reduced, performance records improved, training needs stimulated, and overall safety enhanced.

Committed to Quality, Integrity, and Fairness in Testing Since 1995



Certification vs. License?

NCCCO is a certification body. NCCCO is NOT an association, nor a training company, nor a government agency.



Certification – issued by a certification body or association. Voluntary, unless mandated by an official agency or company.

License – issued by an official agency (local, state, federal). Provides individual legal authority to work in the given industry (mandatory).

By the Numbers



- **150,000** individuals certified since inception
- **95,000+** currently certified
- More than **350,000** certifications issued
- **1,000,000+** written & practical tests administered
- **120+** training firms nationwide (unaffiliated)

Program History



- Early 1987, industry concern emerges
- Unacceptable number of crane accidents occurring
- Many apparently attributable to operator error
- Real cost much higher than realized
 - Personal Injury/Property Damage
 - Workers' Comp./Lost Time
 - Safety Record/"Mod." Rate
- Training needed BUT only effective if learning verified
- Verification through operator certification



Construction in the '80s

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

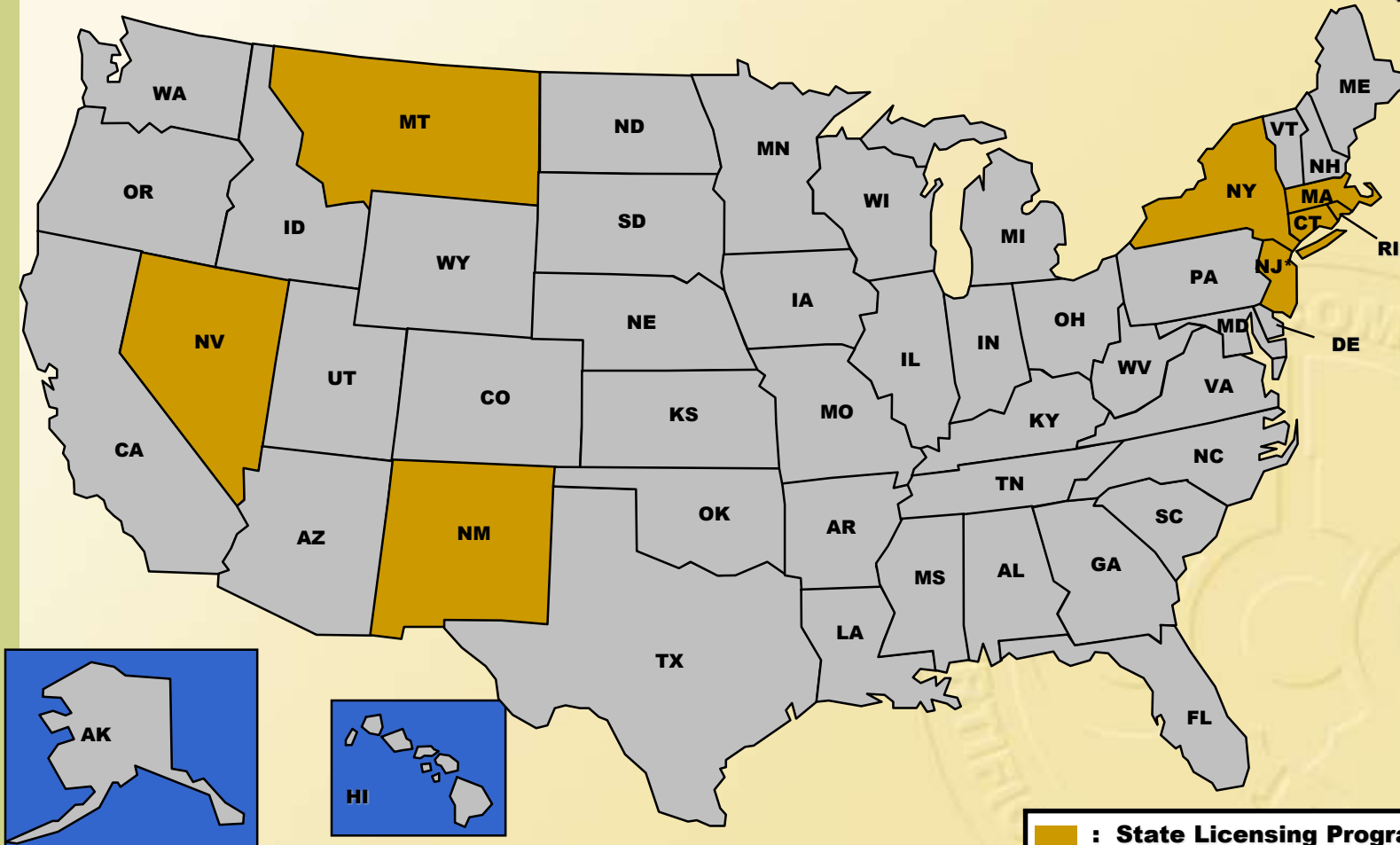
U.S. Standards-Setting Process



- American National Standards Institute (ANSI)
 - VOLUNTARY Standards developed by the private sector through industry associations, e.g. B30 Crane standards developed by American Society of Mechanical Engineers (ASME)
- Occupational Safety and Health Administration (OSHA)
 - MANDATORY Regulations developed by the Federal Government without private sector input.
- Two Considerations:
 - Voluntary standards can become mandatory if adopted by OSHA though “incorporation by reference”
 - Government can use “Negotiated Rulemaking” to develop rules with industry participation



U.S. Licensing Requirements 1995



Orange : State Licensing Program
Gray : Licensing not legislated
** Limited to "Long Boom" Cranes*





89 11 28



Aftermath

- San Francisco tower crane collapse kills 5
- Immediate regulatory response
 - State: California proposes state-wide licensing (2000)
 - Federal: OSHA publishes ANPR (1992)
- Industry mobilizes to preserve self-regulatory position
- Ultimately two (2) initiatives emerge:
 - No. 1. Targeted: Operator Certification Program
 - No. 2. Generalized: Revise Entire Federal Crane Regulation

Participants in Certification Program Development



- Operators
- Equipment Inspectors
- Training Firms
- Insurance Carriers
- Safety Specialists
- Construction Companies
- Consultants
- Contractors
- Petrochemical Firms
- Trade Unions
- Crane Manufacturers
- National Standards Body Members (ASME/ANSI B30)
- Crane Rental Firms
- Industrial Corporations
- Educators
- Military Agencies
- OSHA

Certification Program Timeline



- 1989-1992: Industry stakeholders meet, volunteer/industry experts convene
- 1994: Focus shifts from training to certification; psychometricians join the effort
- 1995: National Commission (NCCCO) formed
- **1996: First tests (written) released for first program (mobile cranes)**

Telescopic Boom Crane



Lattice Boom Crane



Certification Program



- 1989-1992: Industry stakeholders meet
- 1994: Focus shifts from training to certification
- 1995: National Commission (NCCCO) formed
- 1996: First tests (written) released for first program (mobile cranes)
- **1998: First tests (practical) released**
- **1988: Program receives independent accreditation**
- **1989: Federal government recognizes certification**

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 voluntary group as meeting its requirements for operator qualifications and it provides significant incentives for operators who have their operators certified through the national CCO program. There is currently a federal requirement for crane operators to be licensed.

"From my personal experience, I can see operator certification is very much needed," said Assistant Secretary of Labor for OSHA, Charles V. Jeffrey. "It is very important to make sure that the folks handling this equipment be well trained."

The agreement will reduce the number of accidents that occur with cranes, helping to reduce the number of deaths and injuries in construction. The agreement will be in effect by the end of the year 2002. Assistant Secretary of Labor for OSHA, Charles V. Jeffrey signed the OSHA/CCO Agreement with NCCCO Director, Dennis Swanson, Director of OSHA's Directorate of Construction today in

Washington, DC. Jeffrey said, "The agreement will help us reduce the number of accidents that occur with cranes, helping to reduce the number of deaths and injuries in construction. The agreement will be in effect by the end of the year 2002. Assistant Secretary of Labor for OSHA, Charles V. Jeffrey signed the OSHA/CCO Agreement with NCCCO Director, Dennis Swanson, Director of OSHA's Directorate of Construction today in

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U.S. Department of Labor

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

February 26, 1999

VOLUNTARY AGREEMENT

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.

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.

The Agreement between OSHA and CCO:

What Does it Mean?

The Agreement is a voluntary agreement between OSHA and the National Commission for the Certification of Crane Operators (NCCCO) to recognize the CCO national crane operator certification program as meeting its requirements for operator qualifications and it provides significant incentives for operators who have their operators certified through the national CCO program.

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OSHA Recognizes Third-Party, Accredited 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



Third-Party Accreditation

- ANSI and ISO International Standards
- Personnel Certification Standard
 - **ISO 17024** *Conformity assessment - General requirements for bodies operating certification of persons*



International
Organization for
Standardization

Recognition—Federal



**US Army Corps
of Engineers.**





Certification Program

- 1989-1992: Industry stakeholders meet
- 1994: Focus shifts from training to certification
- 1995: National Commission (NCCCO) formed
- 1996: First tests (written) released for first program (mobile cranes)
- 1998: First tests (practical) released
- 1988: Program receives independent accreditation
- 1989: Federal government recognizes certification
- 2001: First recertification exams released
- 2004: Expansion begins into other crane types



Tower Crane & Overhead Crane



Committed to Quality, Integrity, and Fairness in Testing Since 1995

Articulating Crane & Digger Derrick





Pile Driving & Drill Rig





Signal Person & Rigger





Crane Inspector & Lift Director



Committed to Quality, Integrity, and Fairness in Testing Since 1995

Supporting Industry Partners



ACCNA
AN INDUSTRY DIVISION OF THE
National Truck Equipment Association



Construction Institute
AMERICAN SOCIETY OF CIVIL ENGINEERS



CMAA[®]
CRANE MANUFACTURERS
ASSOCIATION OF AMERICA, INC.





No. 2: Entire Rule Revision

- OSHA Crane Rule written in 1970s; no major revision and only one addition since then
- Referenced out-of-date/print voluntary standards
- 2000-2002: **Subpart N Work Group** is formed under the aegis of the Advisory Committee on Construction Safety & Health (ACCSH)
- Work Group meets regularly but makes limited progress
- 2002: OSHA announces intent to use **Negotiated Rulemaking**



What is Negotiated Rulemaking?

- Established by Congress in 1990 to:
 - address concerns that rulemaking had become too adversarial
- Negotiated rulemaking is a process in American administrative law
 - used by federal agencies
 - representatives from a government agency and affected interest groups negotiate the terms of a proposed administrative rule.
- The agency then:
 - publishes the proposed rule in the Federal Register
 - follows the usual rulemaking procedure of soliciting public comments, which are evaluated for inclusion in the final rule



Cranes & Derricks Advisory Committee

- 23 members: Industry stakeholders
- Federal OSHA lawyer part of team
- Public Policy Mediator appointed
- Task: Completely revise the federal standard governing cranes
- 2003-2004: Held x11, 3-day meetings over 12 months
- Submit draft rule to ACCSH, which unanimously approves it; sends to OSHA



Cranes & Derricks Advisory Committee

- 23 members: Industry stakeholders
- Federal OSHA lawyer included
- Professional Moderator appointed
- Hold x11, 3-day meetings over 12 months
- Completely revise the federal standard governing cranes
- Submit draft rule to ACCSH, which unanimously approves it; sends to OSHA
- **Incorporates crane operator certification requirement!**



OSHA Rule Timeline 2002-2010

OSHA announces intent to use **Negotiated Rulemaking**;
creates Cranes & Derricks Advisory Committee (CDAC)



2003—2004: CDAC Meetings held/ACCSH Supports Consensus Document



2006: Fiscal Impact Study Finalized



2008: Office of Management & Budget Review Finalized,
Proposed Rule Published



2009: Public Hearings held



2010: Final Rule Published

Federal Rule



- 1926.1400 Scope
- 1926.1401 Definitions
- 1926.1402 Ground Conditions
- 1926.1403-1406 Assembly/Disassembly
- 1926.1407-1411 Power Line Safety
- 1926.1412 Inspections
- 1926.1413-1414 Wire Rope
- 1926.1415-16 Safety Devices/Operational Aids
- 1926.1417-1418 Operation
- 1926.1419-22 Signals
- 1926.1423 Fall Protection
- 1926.1424 Work Area Control
- 1926.1425 Keeping Clear of the Load
- 1926.1426 Free Fall and Controlled Load Lowering
- **1926.1427-1430 Qualifications and Training of Operators, Signal Persons, Maintenance & Repair Employees**
- 1926.1431 Hoisting Personnel
- 1926.1432 Multiple Crane Lifts
- 1926.1433 Design, Construction and Testing
- 1926.1434 Equipment Modifications
- 1926.1435-1442 Tower Cranes, Derricks, Floating Cranes, Overhead Cranes, Pile Drivers, Sideboom Cranes, Equipment \leq 2,000lbs capacity, Severability

OSHA/Industry Engage



- Problems surface upon publication of the rule:
 - Text added *after* proposed rule stage (not reviewed by industry)
 - OSHA “reinterprets” industry (CDAC) position on certification
- 2010
 - Industry representation to OSHA
 - Series of Stakeholder meetings
 - Industry Coalition formed (CCOS)



Industry Concerns



American Public Power Association

American Wind Energy Association

Associated Builders and Contractors

Associated Equipment Distributors

Associated General Contractors

Association of Equipment Manufacturers

Brick Industry Association

Building and Construction Trades Dept.

AFL-CIO

**CPWR Center for Construction Workforce
and Training**

Edison Electric Institute

General Electric Corporation

**House of Representatives Education and
Workforce Committee**

**House of Representatives Small Business
Committee**

International Union of Operating Engineers

Ironworkers International

Manitowoc Cranes

National Association of Home Builders

National Electric Contractors Association

National Propane Gas Association

**National Rural Electric Cooperatives
Association**

NBIS

Small Business Administration

Specialized Carriers & Rigging Association

Steel Erectors Association of America

TAUC The Association of Union Constructors

Coalition for Crane Operator Safety (CCOS)



- Dialogue with Directorate of Construction and provide guidance
- Inform Department of Labor of issues to help keep pressure on OSHA
- Outreach to Congress through oversight/appropriations to influence OSHA office



OSHA Rule Timeline 2010-2018

2010: Final Rule Published



2014: 4-Year Compliance Period for Crane Operator Certification



2017: 3-Year Postponement



2018: Additional 1-Year Postponement



2018: Proposed Rule Published (to fix the Final Rule)



**2018 November 9: (Second) Final Rule Published
Crane Operator Certification in Effect Nationwide!**



Summary: A Model Collaborative Effort



Lessons Learned



1. Government and Industry/Private Sector **can work collaboratively** to create effective rules, but . . .
2. There must be a **genuine, shared belief** in the collaborative process, underscored by mutual trust
3. There needs to be **clear direction** by government as to any legal consequences involved in rulemaking
4. All language in a Proposed Rule should be made available for **industry/public review**
5. Regulators need to **understand** the industry they're regulating
6. Industry needs to **appreciate/respect** regulatory process
7. The regulatory review process (incl. fiscal impact studies) need to be **expedited**—Delays cause private sector confusion/frustration
8. Bottom line: The investment (time, labor) at the outset **pays dividends** at the end (quality of regulation, compliance by industry)



QUESTIONS?

Graham Brent, *Chief Executive Officer*

National Commission for the Certification of Crane Operators
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