



HOW GOVERNMENT AND INDUSTRY CAN ENGAGE FOR EFFECTIVE REGULATORY ACTION

A Practical Example from the U.S. Private Sector

Graham Brent, Chief Executive Officer

National Commission for the Certification of Crane Operators
(NCCCO)

Evidence-based Regulatory Decision Making

Twangale Park, Lusaka, Zambia

19 July 2018

Two Examples



- **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 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

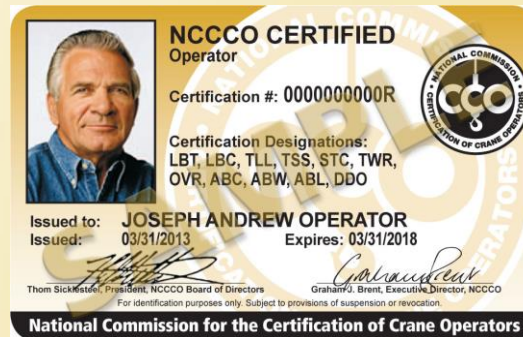
A global lifting environment in which crane and crane-related risks are reduced, performance records improved, training needs stimulated, and overall safety enhanced.

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
- 90,000+ 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 light on detail
- No federal requirement; 5 states had rules
- No pathway to compliance
- Lip service to personnel competency assessment widespread

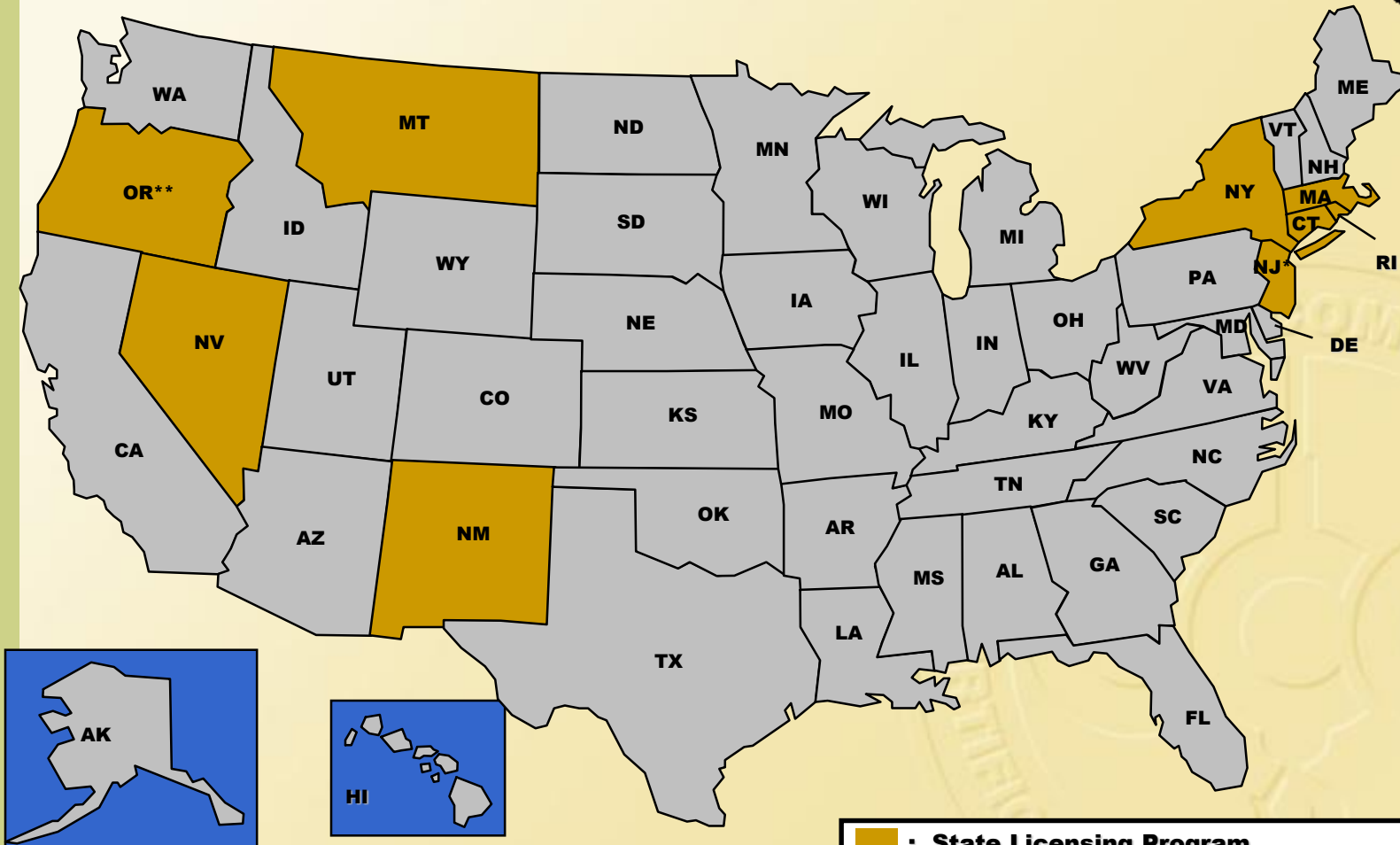
U.S. Standards-Setting Process



- 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

***Long Boom License Only**

****Mandatory Training Requirement Only**





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

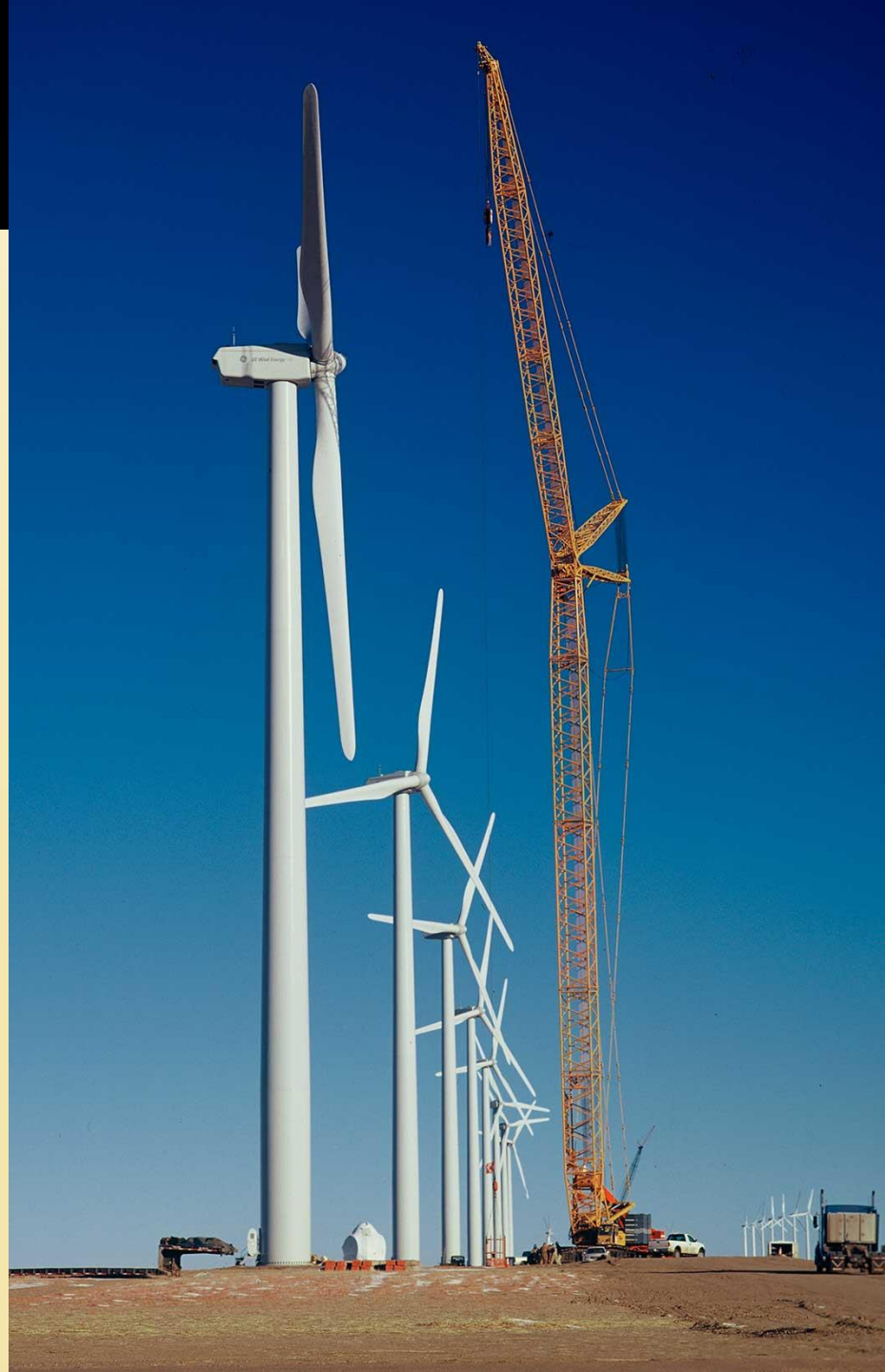


- 1989-1992: Industry stakeholders meet, volunteer/industry experts convene
- 1994: Focus shifts from training to certification; psychometricians join the effort
- 1995: National Commission (NCCCO) formed
- **1996: First tests (written) released for first program (mobile cranes)**

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 industry group as meeting its requirements for crane operator qualifications, and it provides 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 V. 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 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 accept your word that they are trained. "I want to say how much I appreciate what [CCO] has done. This kind of certification will help us reduce the number of accidents that occur with cranes."

Russell Bruce Swanson, Director of OSHA's Directorate of Construction commented: "The requirement for certification is necessary to make the job 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 block along that road. "The certification program was that it separated those who had the necessary knowledge and skills from those who did not."



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

CCO certification will "reduce the number of accidents that occur with cranes, helping us achieve our overall goal of a 15% reduction in construction fatalities by the year 2002." Assistant Secretary of Labor for OSHA, Charles V. Jeffress, signs the OSHA/CCO Agreement while Russell Bruce Swanson, Director of OSHA's Directorate of Construction looks on.



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 National Commission for 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 officers 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 project'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

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.

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 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
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- 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



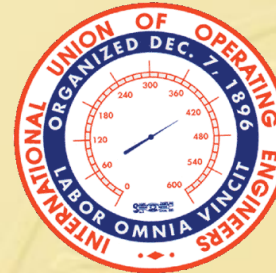
ACCNA
AN INDUSTRY DIVISION OF THE
National Truck Equipment Association



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
- Held x11, 3-day meetings over 12 months
- Submit draft rule to ACCSH, which unanimously approves it; sends to OSHA

Cranes & Derricks Advisory Committee



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- 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 $\leq 2,000$ lbs 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 – present
 - Industry representation to OSHA
 - Series of Stakeholder meetings
 - Industry Coalition formed (CCOS)
 - Ultimately, OSHA issues a second, Proposed Rule to “fix” the language at issue

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

Lessons Learned



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



Summary: A Model Collaborative Effort





QUESTIONS?

Graham Brent, *Chief Executive Officer*

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(NCCCO)

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Evidence-based Regulatory Decision Making

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