OSHA Construction Update

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Acting Director, Directorate of Construction
Occupational Safety and Health Administration

Agenda

- Safety Leadership
- Statistics
- Regulatory
- Crane Operator Qualification
- Trenching
- Stand-downs
Safety Leadership

- Lessons learned
  - Construction
  - Fan Company
  - Army
  - OSHA

Leadership

- **BE**
  - learn to be a good follower first: listen / observe
  - show good character and incorporate safety
  - become the leader you are meant to be (formal or not)
  - every day you have an audience: Remember that
- **KNOW**
  - your profession by learning (seek knowledge)
- **DO**
  - lead by example
  - incorporate operational safety all day: every day
The Construction Industry

- 90% of Construction Employers have 20 or less employees
- The industry typically has very high employment turnover rates
- Most are multi-employer worksites
- 51% of OSHA compliance inspections are construction (three year average, FY16-18)

Number and rate of fatal work injuries by industry sector, 2017

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Number of Fatal Work Injuries</th>
<th>Fatality Rate per 100,000 Full-Time Equivalent Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and warehousing</td>
<td>561</td>
<td>2.2</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>332</td>
<td>1.9</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>278</td>
<td>1.6</td>
</tr>
<tr>
<td>Government</td>
<td>224</td>
<td>2.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>172</td>
<td>2.2</td>
</tr>
<tr>
<td>Retail trade</td>
<td>126</td>
<td>1.6</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>104</td>
<td>3.0</td>
</tr>
<tr>
<td>Other services (ex. public admin.)</td>
<td>94</td>
<td>2.3</td>
</tr>
<tr>
<td>Educational and health services</td>
<td>52</td>
<td>4.8</td>
</tr>
<tr>
<td>Utilities</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>Information</td>
<td>26</td>
<td>5.6</td>
</tr>
<tr>
<td>Utilities</td>
<td>28</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Private construction had the highest count of fatal injuries in 2017, but the private agriculture, forestry, fishing and hunting sector had the highest fatality rate.
The actual breakdown of the causes of fatalities on construction sites in 2016 is as follows (numbers are a percentage of the 991 total construction-related fatalities that occurred in 2016):

• Falls: 370 (37%);
• Electrocutions: 82 (9%);
• Struck by object: 93 (10%);
• Caught in/between: 55(2%).

“Focus 4” Outreach Training Program

https://www.osha.gov/dte/outreach/construction/focus_four/index.html
Percent of Fatal Falls to lower level, 2017

- A total of 71,3 work-related fatal falls to lower level were recorded in 2017, up 2 percent from 2016.
- Of the cases where height of fall was known (6,144 cases), 48 percent were falls of 15 feet or less.
- About one in five falls with a known height were from more than 30 feet.

Source: BLS - 2017

OSHA Inspections Conducted

FY 2010 – FY 2018

- Inspections
- Enforcement Units
FY 18 Inspection Data

- **Highlights:**
  - Total OSHA inspections: 32,020
  - Construction inspections: 16,734 (52.3%)

- **Construction inspections:**
  - Health: 968
  - Safety: 15,766

- **Complaint: 2,191**
  - Fatalities / Catastrophes: 317
  - Referrals: 1,577

OSHA Top 10 Most Cited Violations

1. Fall Protection
2. Hazard Communication
3. Scaffolding
4. Respiratory Protection
5. Lockout/Tagout
6. Ladders
7. Powered Industrial Truck
8. Fall Protection Training
9. Machine Guarding
10. Eye and Face Protection
Top 10 Violations in Construction

1. Fall Protection – General Requirements (1926.501)
2. Scaffolding (1926.451)
3. Ladders (1926.1053)
4. Fall Protection – Training (1926.503)
5. Eye and Face Protection (1926.102)
6. General Safety and Health Provisions (1926.20)
7. Head Protection (1926.100)
8. Aerial Lifts (1926.453)

Electrical: Top Ten Citations in Construction

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>Conditions Cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926.404(f)(6) – Grounding path</td>
<td>283</td>
</tr>
<tr>
<td>1926.416(a)(1) – General requirements</td>
<td>250</td>
</tr>
<tr>
<td>1926.405(g)(2)(iv) – Flexible cords and cables</td>
<td>224</td>
</tr>
<tr>
<td>1926.416(e)(1) – Worn/frayed cords or cables</td>
<td>213</td>
</tr>
<tr>
<td>1926.403(b)(2) – Equipment installation, and use of equipment</td>
<td>206</td>
</tr>
<tr>
<td>1926.404(b)(1)(i) – Ground fault protection</td>
<td>141</td>
</tr>
<tr>
<td>1926.405(a)(2)(ii)(I) – Flexible cords and cables shall be protected</td>
<td>121</td>
</tr>
<tr>
<td>1926.403(l)(2)(ii) – Working clearances</td>
<td>107</td>
</tr>
<tr>
<td>1926.403(b)(1) – Examination, installation, and use of equipment</td>
<td>100</td>
</tr>
<tr>
<td>1926.404(b)(1)(ii) – Mechanical strength and durability</td>
<td>80</td>
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</tbody>
</table>
Regulatory Activities

- Railroad Cranes- Writing Final Rule
- Tech Amendments- Legal review.
- Crane Amendments- Legal review
- Communication Tower SBREFA- SBAR panels have been completed.

Crane Operator Qualification

- Final Rule
  - Final Rule published on November 9, 2018
  - Updated FAQs
  - Enforcement Policy – Documentation soft rollout
- General Requirements
  - Employers must ensure operators are trained, certified/licensed, and evaluated
  - Any operator not certified/licensed and evaluated is an operator-in-training

Regulatory Activities

- **Standards Improvement Project IV (Final Rule)**
  - 17 standard sections proposed to be revised:
    - Removes social security numbers from 17 health standards
    - Recordkeeping: Clarifies hearing loss “work relatedness” for providers
    - Removes requirements for posting load capacity signs in residential structures under construction
    - Removes requirement to maintain hardcopies of X-rays
    - Updates MUTCD reference to 2009 version
    - ROPS updates to newer ISO standard
    - Underground Diesel Equipment updated follow to MSHA standard
    - Update to medical first aid standard: 911 services
  
- Published on May 14, 2019

OSHA’s Trenching Initiative
2018 OSHA Trench Safety Initiative Goals

- Increase safety awareness in trenching and excavation work;
- Reinforce the value of using proven protective measures ... sloping, benching, shoring and shielding; and
- Prevent future trenching injuries and fatalities through balanced Enforcement and Compliance Assistance.

OSHA’s Trenching Initiative

Trenching Injuries and Fatalities

- Trench-Related Fatalities
- Trench-Related Reported Injuries

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Injuries</th>
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<tbody>
<tr>
<td>2012</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>2013</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>2014</td>
<td>12</td>
<td>11</td>
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<tr>
<td>2015</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>2016</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>2017</td>
<td>12</td>
<td>23</td>
</tr>
</tbody>
</table>

SLOPE IT. SHORE IT. SHIELD IT.

osha.gov/trenching
Why Focus on Trenching?

Top Reasons for Conditions

- Lack of training
- Improper Soil Analysis
- Lack of Protective System:
  - Slope
  - Shore
  - Shield
- Lack of Competent Person
Agency Priority Goal

- **Department of Labor**
- **Worker Safety**: Reduce Trenching and Excavation Hazards
- **Goal Leader**: Loren Sweatt, Deputy Assistant Secretary for Occupational Safety and Health
- **Deputy Goal Leader**: Scott Ketcham, Acting Director, Directorate of Construction
- **Goal Statement**: By September 30, 2019, increase trenching and excavation hazards abated by 10% compared to FY2017 through inspections and compliance assistance at workplaces covered by the Occupational Safety and Health Administration.

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National Emphasis Program (NEP) on Trenching

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OSHA INSTRUCTION

<table>
<thead>
<tr>
<th>U.S. DEPARTMENT OF LABOR</th>
<th>Occupational Safety and Health Administration</th>
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<tbody>
<tr>
<td>DIRECTIVE NUMBER: CPL-02-00-161</td>
<td>EFFECTIVE DATE: 10/1/2016</td>
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<td>SUBJECT: National Emphasis Program on Trenching and Excavation</td>
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**ABSTRACT**

**Purpose**: This instruction, National Emphasis Program on Trenching and Excavation, describes policies and procedures for continued implementation of an OSHA National Emphasis Program (NEP) to identify and to reduce hazards which are causing or likely to cause serious injuries and fatalities during trenching and excavation operations.

**Scope**: This instruction applies OSHA-wide.

**References**: 29 CFR 1926, Subpart P – Excavations
CPL 02-00-160, Field Operations Manual (FOM), August 2, 2016.

**Cancellations**: This instruction will supersede CPL 02-00-069, Special Emphasis: Trenching and Excavation, September 19, 1985, 100 days after this NEP becomes effective. Enforcement under CPL 02-00-069 shall continue during the pre-enforcement outreach period in Section XI of this instruction.
Public Service Announcement

5 THINGS
YOU SHOULD KNOW TO STAY SAFE

Trenching and Excavation Resources

Trenching and Excavation Toolkit

Revised OSHA 2226 Excavation
Trench Safety Stand-Down

TRENCH Protective Systems SAVE LIVES!
SHIELD IT, SHORE IT, or SLOPE IT

Trench Safety Stand Down Week
June 17–21, 2019

Respirable Crystalline Silica: The Construction Standard
Silica

- OSHA began enforcing the construction standard on September 23, 2017
- OSHA silica webpage: www.osha.gov/silica
  - Small Entity Compliance Guide
  - FAQs
  - Fact sheets
  - Videos
- Table 1 RFI - Possible revisions to Table 1

Engineering Controls

- Cutting block without engineering controls
- Cutting block using water to control the dust
Engineering Controls (cont.)

Grinding without engineering controls

Grinding using a vacuum dust collector

Engineering Controls (cont.)

Jackhammer use without engineering controls

Jackhammer use with water spray to control dust
Silica Violations Cited in the Construction Industry and Coded N-02-SILICA

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>Conditions Cited</th>
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<tbody>
<tr>
<td>1926.1153(c)(1) - Specified exposure control methods</td>
<td>89</td>
</tr>
<tr>
<td>1926.1153(d)(2)(i) - Exposure assessment</td>
<td>83</td>
</tr>
<tr>
<td>1926.1153(g)(1) - Implement a written exposure control plan</td>
<td>68</td>
</tr>
<tr>
<td>1926.1153(i)(1) - Hazard communication</td>
<td>34</td>
</tr>
<tr>
<td>1926.1153(e)(2) - Respiratory protection program</td>
<td>13</td>
</tr>
<tr>
<td>1926.1153(g)(4) - Competent person</td>
<td>12</td>
</tr>
<tr>
<td>1926.1153(d)(1) - Permissible exposure limit (PEL).</td>
<td>11</td>
</tr>
<tr>
<td>1926.1153(i)(2)(i) - Employee information and training</td>
<td>10</td>
</tr>
<tr>
<td>1926.1153(h)(1)(i) - Medical examinations and procedures</td>
<td>9</td>
</tr>
<tr>
<td>1926.1153(i)(2)(i)(A) - Exposure to respirable crystalline silica</td>
<td>6</td>
</tr>
</tbody>
</table>

Silica: Top Ten Citations in Construction

1. Table 1
2. Exposure Assessment
3. Written Exposure Control Plan
4. Hazard Communication
5. Info & Training
6. Competent Person
7. Respiratory protection Program
8. PEL
9. Medical Surveillance
10. Health Hazards
OSHA Resources: Silica in Construction

- New video: “Protecting Workers from Silica Hazards in the Workplace”
- 6 new videos highlighting control methods for Table 1 tasks/equipment
- New FAQ page
- New Sample Employee Training Presentation

osha.gov/silica

Construction Outreach Materials

Construction Outreach Materials
OSHA Small Entity Compliance Guide for Construction. Discusses suggested engineering and work practice controls, exposure assessments, respiratory use, medical surveillance, written exposure control plans, and other aspects of compliance.

OSHA’s Crystalline Silica Rule: Construction. Provides a summary of the requirements of the respirable crystalline silica standard for construction.

OSHA’s Crystalline Silica Rule: Construction Outreach Materials are designed to help employers, workers and the public understand the new OSHA standards and how to comply with them.

Controlling Silica Dust in Construction Fact Sheets for Table 1 Tasks
- Handheld Power Saw Fact Sheet
- Handheld Grinders for Tasks Other Than Mortar Removal Fact Sheet
- Handheld Power Tools Used to Cut Concrete Portland Fact Sheet
- Jackhammers or Handheld Powered Chipping Tools Fact Sheet
- Handheld and Stand-Mounted Drill Fact Sheet
- Stationary Masonry Saw Fact Sheet
- Handheld Grinders for Mortar Removal (Cut-Riveting) Fact Sheet
- Walk-Behind Saw Fact Sheet
- Concrete Saw Fact Sheet
- Rig-Mounted Core Saws or Drills Fact Sheet
- Diesel Drilling Rigs for Concrete Fact Sheet
- Vehicle-Mounted Drilling Rigs for Rock and Concrete Fact Sheet
- Walk-Behind Milling Machines and Floor Grinders Fact Sheet
- Small Concrete Milling Machines (2200 to 2500 Lbf) Fact Sheet
- Large Concrete Milling Machines (Half Lane and Larger) Fact Sheet
- Cracking Machines Fact Sheet
- Heavy Equipment and Utility Vehicles Used During Demolition Activities Fact Sheet
- Heavy Equipment and Utility Vehicles Used for Drilling and Demolition Tasks Fact Sheet
National Fall Safety Stand-Down

Example of Fall Stand-Down Event
Thank You

NECA Attendees

Your efforts are key to a safe and healthful workplace!

Questions?

www.osha.gov
DOC: 202-693-2020