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Training

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HEALTH & SAFETY UPDATE AT NEWEA

January 29, 2019

David P. Horowitz, PE, CSP, DPHorowitz@tighebond.com

Alan D. Stratton, CSP, ADStratton@tighebond.com

AGENDA

- **State Adopts OSHA**
 - DLS
 - Free Resources

- **OSHA Top 10 Most Cited**
 - 10 Through 6

MARCH 14, 2018

Baker signs OSHA bill for public workers



FILE PHOTO

Gov. Charlie Baker

BY STATE HOUSE NEWS SERVICE

All public workers in Massachusetts will operate under the same safety standards as their private sector counterparts under legislation that Gov. Charlie Baker has signed into law.

MASSACHUSETTS & OSHA

- **March 9, 2018 - Governor Baker signed a bill adopting OSHA**
 - Original MGL introduced before OSHA existed
- **Clarifies**
 - Definition of public sector employees
 - Public sector employers must meet OSHA standards
- **Highlights**
 - DLS
- **DLS Inspections**
 - Imminent hazard, Accident, Voluntary, Complaint, Planned Programed Inspection

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MASSACHUSETTS & OSHA

- Does not replace OSHA
- Requirements are as strict as OSHA
- Effective date is February 1, 2019
- May pursue becoming an OSHA State Plan State
 - Connecticut; Illinois; Maine; New Jersey; and New York.
- Public sector employers may get fined

MARCH 14, 2018

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QUESTIONS



WHY DO WE CARE?

Why do we care? (July 2018)

Person Injured After 30-Foot Fall at Groton Sewage Treatment Plant

A person was seriously injured after a 30-foot fall at the Groton sewage treatment plant Monday.

Fire officials confirmed there is ongoing construction at the plant and that someone fell approximately 30 feet into the plant Monday. Firefighters used a Stokes basket to rescue the victim, who suffered significant injuries.

The victim was removed from the area by ambulance then airlifted by LifeStar to the hospital for treatment.

It was not clear if the victim was an employee of the plant or a contractor.

Why do we care? (November 2018)

Multiple injuries after hazmat incident at Oakwood Beach Wastewater Treatment Plant

Updated 2 mos ago; Posted 2 mos ago



Gallery: Emergency personnel respond to hazmat incident in
Oakwood

Why do we care? (December 2018)

Worker dies after trench rescue at Dundalk wastewater treatment plant

by Bryna Zumer | Monday, December 17th 2018



Worker critically injured at Dundalk wastewater treatment plant



DUNDALK, Md. (WBFF) - A worker at a major wastewater treatment plant has died Monday while digging a trench.



The worker was stuck in a 20-foot-deep trench at the Back River Treatment Plant in Dundalk, reported Baltimore County Fire Department.



The fire department said the worker "was struck by a piece of equipment" at about 12:09 p.m.



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OSHA'S

TOP 10

MOST CITED VIOLATIONS

**OSHA'S TOP TEN MOST CITED
10 THROUGH 6**

OSHA'S TOP TEN MOST CITED

OSHA's 2018 TOP TEN Most Frequently Cited Violations Number 10 through Number 6

6	Ladders	29 CFR 1926.1053
7	Powered industrial trucks	29 CFR 1910.178
8	Fall Protection – Training Requirements	29 CFR 1926.503
9	Machinery and Machine Guarding, general requirements	29 CFR 1910.212
10	Eye and Face Protection	29 CFR 1926.102

OSHA's 2018 Top 10 Most Frequently Cited Violations



OSHA'S TOP TEN MOST CITED

OSHA's 2015 TOP TEN Most Frequently Cited Violations

- | | |
|--------------------------------------|---|
| 1. 1926.501 – Fall Protection (C) | 6. 1910.178 – Powered Industrial Trucks |
| 2. 1910.1200 – Hazard Communication | 7. 1926.1053 – Ladders (C) |
| 3. 1926.451 – Scaffolding (C) | 8. 1910.305 – Electrical, Wiring Methods |
| 4. 1910.134 – Respiratory Protection | 9. 1910.212 – Machine Guarding |
| 5. 1910.147 – Lockout/Tagout | 10. 1910.303 – Electrical, General Requirements |

(C) = Construction standard

OSHA's 2014 TOP TEN Most Frequently Cited Violations

- | | |
|------------------------------|--------------------------------|
| 1. Fall protection (C) | 6. Lockout/tagout |
| 2. Hazard communication | 7. Ladders (C) |
| 3. Scaffolding (C) | 8. Electrical: wiring |
| 4. Respiratory protection | 9. Machine guarding |
| 5. Powered industrial trucks | 10. Electrical: systems design |

C = Construction standard

OSHA's 2013 TOP TEN Most Frequently Cited Violations

- | | |
|---------------------------|-------------------------------|
| 1. Fall protection (C) | 6. Powered industrial trucks |
| 2. Hazard communication | 7. Ladders (C) |
| 3. Scaffolding (C) | 8. Lockout/tagout |
| 4. Respiratory protection | 9. Electrical: systems design |
| 5. Electrical: wiring | 10. Machine guarding |

C = Construction standard

#10 EYE & FACE PROTECTION

- **Eye & Face Protection In Wastewater Treatment Plants**
 - Chemical handling
 - Operations
 - Laboratory
 - Wastewater
 - Health concerns
 - Flying debris/objects
 - Sludge management
 - Maintenance (machining)



#10 EYE & FACE PROTECTION

- **OSHA Requirements:**

- Protect against specific hazard(s) encountered by employees
- Comfortable to wear
- Must not restrict vision or movement
- Durable and easy to clean and disinfect
- Must not interfere with the function of other required PPE
- Meet requirements of ANSI Z87.1-1989



#10 EYE & FACE PROTECTION

- **Training Requirements:**
 - Protect against specific hazard(s)
 - Why eye protection is necessary
 - How the eye protection will protect them
 - The limitations of the eye protection
 - When they must wear the eye protectors



#10 EYE & FACE PROTECTION

- **Training Requirements:**

- How to put the protective eyewear on properly
- How to adjust straps and other parts for a comfortable and effective fit
- How the protective eyewear fits over or contains an employee's corrective lenses
- How to identify signs of wear
- How to clean and disinfect the safety eyewear



PPE Hazard Assessment Certification Form

*Name of work place: _____

*Assessment conducted by: _____

*Work place address: _____

*Date of assessment: _____

Work area(s): _____

Job/Task(s): _____










*Required for certifying the hazard assessment.

Use a separate sheet for each job/task or work area

EYES		
<p>Work activities, such as:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> abrasive blasting <input type="checkbox"/> chopping <input type="checkbox"/> cutting <input type="checkbox"/> drilling <input type="checkbox"/> welding <input type="checkbox"/> punch press operations <input type="checkbox"/> other: _____ </div> <div style="width: 45%;"> <input type="checkbox"/> sanding <input type="checkbox"/> sawing <input type="checkbox"/> grinding <input type="checkbox"/> hammering </div> </div>	<p>Work-related exposure to:</p> <input type="checkbox"/> airborne dust <input type="checkbox"/> flying particles <input type="checkbox"/> blood splashes <input type="checkbox"/> hazardous liquid chemicals <input type="checkbox"/> intense light <input type="checkbox"/> other: _____	<p>Can hazard be eliminated without the use of PPE? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If no, use:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> <input type="checkbox"/> Safety glasses <input type="checkbox"/> Safety goggles <input type="checkbox"/> Shading/Filter (# _____) <input type="checkbox"/> Welding shield <input type="checkbox"/> Other: _____ </div> <div style="width: 15%;"> <input type="checkbox"/> Side shields <input type="checkbox"/> Dust-tight goggles </div> </div>
FACE		
<p>Work activities, such as:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> cleaning <input type="checkbox"/> cooking <input type="checkbox"/> siphoning <input type="checkbox"/> painting <input type="checkbox"/> dip tank operations <input type="checkbox"/> other: _____ </div> <div style="width: 45%;"> <input type="checkbox"/> foundry work <input type="checkbox"/> welding <input type="checkbox"/> mixing <input type="checkbox"/> pouring molten metal </div> </div>	<p>Work-related exposure to:</p> <input type="checkbox"/> hazardous liquid chemicals <input type="checkbox"/> extreme heat/cold <input type="checkbox"/> potential irritants: _____ <input type="checkbox"/> other: _____	<p>Can hazard be eliminated without the use of PPE? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If no, use:</p> <input type="checkbox"/> Face shield <input type="checkbox"/> Shading/Filter (# _____) <input type="checkbox"/> Welding shield <input type="checkbox"/> Other: _____
HEAD		
<p>Work activities, such as:</p> <input type="checkbox"/> building maintenance <input type="checkbox"/> confined space operations <input type="checkbox"/> construction <input type="checkbox"/> electrical wiring <input type="checkbox"/> walking/working under catwalks <input type="checkbox"/> walking/working under conveyor belts <input type="checkbox"/> walking/working under crane loads <input type="checkbox"/> utility work <input type="checkbox"/> other: _____	<p>Work-related exposure to:</p> <input type="checkbox"/> beams <input type="checkbox"/> pipes <input type="checkbox"/> exposed electrical wiring or components <input type="checkbox"/> falling objects <input type="checkbox"/> machine parts <input type="checkbox"/> other: _____	<p>Can hazard be eliminated without the use of PPE? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If no, use:</p> <input type="checkbox"/> Protective Helmet <div style="margin-left: 20px;"> <input type="checkbox"/> Type A (low voltage) <input type="checkbox"/> Type B (high voltage) <input type="checkbox"/> Type C <input type="checkbox"/> Bump cap (not ANSI-approved) </div> <input type="checkbox"/> Hair net or soft cap <input type="checkbox"/> Other: _____

Personal Protective Equipment

The following equipment is required in this work area: _____

Task	Eye Protection 	Ear Plugs or Ear Muffs 	Gloves 	Feet 	Apron 	Respirator 	ANSI Hi-Vis clothing 	Hard Hat 	Fall Protection 	Other
For example: Chainsaw operations	X Safety glasses with faceshield	X	X	X						X—Kevlar Chaps
For example: Electroplating operations	X goggles		X nitrile	X	X					

This certifies that the workplace has been evaluated for hazards in order to determine if personal protective equipment is required.

Signature of person conducting the assessment: _____ Date: _____

#9 FALL PROTECTION - TRAINING

- **Fall Protection – Training In Wastewater Treatment Plants**

- Ladder use
- Access issues
 - Clarifiers
 - Aeration tanks
 - Grit chambers
 - Chemical tanks
- Training
 - Site specific
 - Periodic



#9 FALL PROTECTION - TRAINING

- **A qualified person must train workers to correctly:**
 - Identify and minimize fall hazards
 - Use personal fall protection systems and rope descent systems
 - Maintain, inspect, and store equipment or systems used for fall protection

OSHA[®] FactSheet

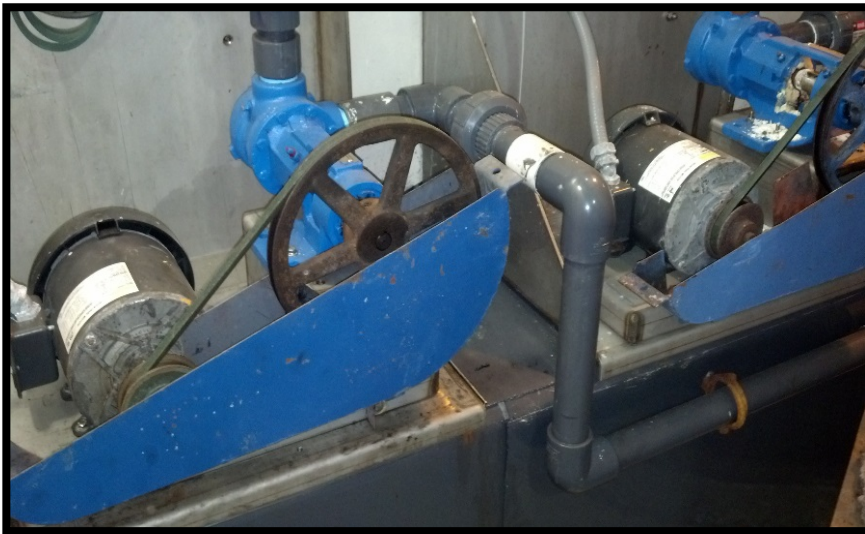
OSHA's Final Rule to Update, Align, and Provide Greater Flexibility in its General Industry Walking-Working Surfaces and Fall Protection Standards



#8 MACHINE GUARDING

• Machine Guarding In Wastewater Treatment Plants

- Engineered or structural fixes
- Job Hazard Analysis (JHAs)



#8 MACHINE GUARDING



#7 POWERED INDUSTRIAL TRUCKS

- **Powered Industrial Trucks In Wastewater Treatment Plants**



#7 POWERED INDUSTRIAL TRUCKS

- **Powered Industrial Trucks In Wastewater Treatment Plants**
 - Sludge handling
 - Chemical handling
 - Maintenance procedures
- **PIT & Other requirements**
 - Training
 - State permitting
 - Hoisting

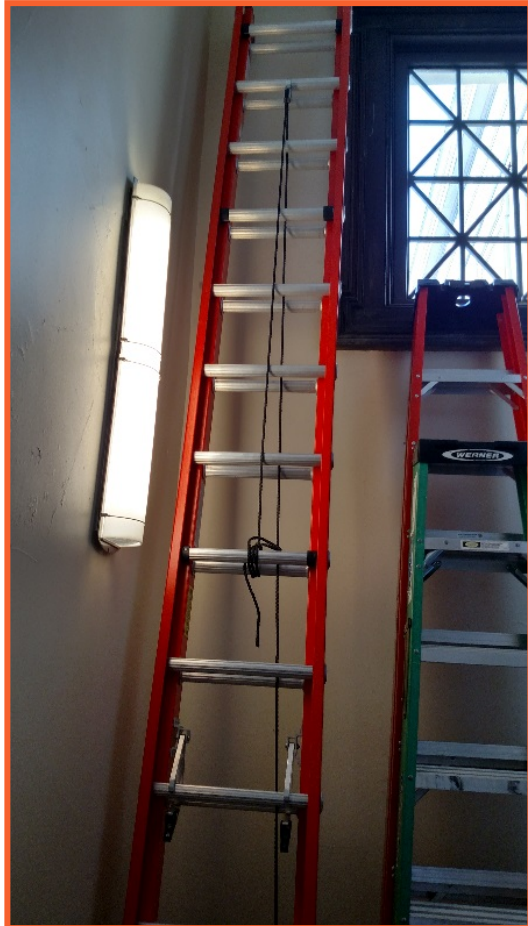


#7 POWERED INDUSTRIAL TRUCKS

Training Topic ^{1,2,3,4}	Standard	Pre-Assignment ⁵	Refresher ⁶
Plant Operations			
SOPs and equipment	5(a)(1)	New hire	Performance based
Ladders - portable	1910.30(b)(1)	Yes	Performance based
Emergency Action Plan	1910.38(e)	New hire	Performance based
Hazard Communication	1910.1200(h)	New hire	Performance based
Personal Protective Equipment	1910.132 (d)(1)	New hire	Performance based
Fixed Ladders greater than 25 ft. high	1910.28 (b)(1)	Yes	Performance based
Portable ladders	1910.30 (b)(1)	Yes	Performance based
Respirators, if used	1910.134(k)	Yes	Annual
Plant Maintenance			
Fall Protection – when hatches or floor openings are opened.	1910.30(b)(1)	Yes	Performance based
Lockout Tagout	1910.147(c)(7)	Yes	Performance based
Confined Space Entry	1910.146(g)	Yes	Performance based
Overhead hoist, if present.	1910.179(b)(8)	Yes	Performance based
Distribution			
Workzone Safety – working in roadway	1926.21(b)(2)	Yes	Performance based
Trench safety - Laborers	1926.21(b)(2)	Yes	Performance based
Trench safety – Competent Person	1926.21(b)(2)	Yes	Performance based
Tools – grinders, power saws, jackhammer	1926.21(b)(2)	Yes	Performance based
Vactor – review Owner’s Manual	1926.21(b)(2)	Yes	Performance based
Confined Space Entry – manholes and tanks	1910.146(g)	Yes	Performance based
Asbestos Cement Pipe (8-hr)	454 CMR 6.00	Yes	5 year
Laboratory			
Laboratory – train on SOPs and equipment	5(a)(1)	Yes	Performance based
Landscaping			
Chainsaw – review Owner’s Manual and PPE	5(a)(1)	Yes	Performance based
Mowers – review Owner’s Manual	5(a)(1)	Yes	Performance based
Roof Access and Maintenance			
Fall Protection – designated areas and/or fall restraint system	1910.30(b)(4)	Yes	Performance based
Snow Removal			
Snow blower – review Owner’s Manual	5(a)(1)	Yes	Performance based

#6 LADDERS – CONSTRUCTION

- Design considerations
- Milestone Observation



OSHA[®] FactSheet

Reducing Falls in Construction: Safe Use of Stepladders

Workers who use ladders in construction risk permanent injury or death from falls and electrocutions. These hazards can be eliminated or substantially reduced by following good safety practices. This fact sheet examines some of the hazards workers may encounter while working on **stepladders** and explains what employers and workers can do to reduce injuries. OSHA's requirements for stepladders are in Subpart X—Stairways and Ladders of OSHA's Construction standards.

What is a Stepladder?

A **stepladder** is a portable, self-supporting, A-frame ladder. It has two front side rails and two rear side rails. Generally, there are steps mounted between the front side rails and bracing between the rear side rails. (See Figure 1, below.)



Figure 1: Stepladder

PLAN Ahead to Get the Job Done Safely.

A competent person must visually inspect stepladders for visible defects on a periodic basis and after any occurrence that could affect their safe use. Defects include, but are not limited to:

- Structural damage, split/bent side rails, broken or missing rungs/steps/cleats and missing or damaged safety devices.

- Grease, dirt or other contaminants that could cause slips or falls.
- Paint or stickers (except warning or safety labels) that could hide possible defects.

PROVIDE the Right Stepladder for the Job with the Proper Load Capacity.

- Use a ladder that can sustain at least four times the maximum intended load, except that each extra-heavy duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. Also acceptable are ladders that meet the requirements set forth in Appendix A of Subpart X. Follow the manufacturer's instructions and labels on the ladder. To determine the correct ladder, consider your weight plus the weight of your load. Do not exceed the load rating and always include the weight of all tools, materials and equipment.

Type	Duty Rating	Use	Load
1AA	Special Duty	Rugged	375 lbs.
1A	Extra Heavy Duty	Industrial	300 lbs.
1	Heavy Duty	Industrial	250 lbs.
II	Medium Duty	Commercial	225 lbs.
III	Light Duty	Household	200 lbs.

Source for Types IA, I, II, III: Subpart X—Stairways and Ladders, Appendix A American National Standards Institute (ANSI) 14.1, 14.2, 14.5 (2002) or OSHA's Construction standards. Source for Type IAA: ANSI 14.1, 14.2, 14.6 (2009) which are non-mandatory guidelines.

#6 LADDERS – CONSTRUCTION

- **Regulatory Changes:**

- Protect against specific hazard(s)
- As of November 19, 2018:
 - All existing fixed ladders are required to have a cage, well, ladder safety system or personal fall arrest system for climbs of over 24’.
- By November 18, 2036 (twenty years from the date of publication of the revised standard):
 - Replace cages and wells on all ladders extending more than 24 feet with a ladder safety or personal fall arrest system



OSHA'S TOP TEN MOST CITED

**OSHA's 2018 TOP TEN
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10	Eye and Face Protection	29 CFR 1926.102



QUESTIONS



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