

1. What is a Trench Safety Stand Down?

A Safety Stand-Down is a voluntary event for employers to talk directly to employees about safety. The Trench Safety Stand-Down focuses on reinforcing the importance of using the widely recognized established safety practices that will prevent injuries and save lives.

2. When is the Trench Safety Stand Down?

The Stand Down will be held over one week, from June 18-23, 2018.

3. Why are we having a Trench Safety Stand Down?

There has been a sharp increase in the number of trenching and excavation fatalities over the past few years. We need to address this now in order to prevent further lives from being needlessly lost.

4. What would you say accounts for the recent rise in the number of trench-related fatalities?

OSHA believes the recent rise in the number of incidents, both fatal and otherwise, are related to several factors:

- a) An increase in construction utility work that is drawing new employers and employees into the industry,
- b) Risk acceptance by some contractors whose work practices are based on getting the job done quickly; and
- c) Lack of training on safety practices required by OSHA's subpart P "Excavations".

5. What are the most important things employers and workers need to know to operate safely during trenching and excavation? What are the challenges they face in operating safely?

OSHA has observed an upward trend in fatal trench collapses over the past several years where the victim was killed while not working inside a protective system as required by the regulation. Sloping, benching, shoring, and shielding are well known means of protective measures used by the industry. In many cases, the worker was not protected by any system at all due to a common attitude of "this is short duration work or won't take long", right before the incident occurs in an unprotected excavation. It is important that employers and employees both realize that protective systems are there to prevent this from happening and that they are required to be utilized. In addition, ongoing training of crewmembers/workers is critical in addressing trenching and excavation safety. Workers should receive additional jobsite-specific training any time

trenching or excavation hazards are present which are new, unusual, or unique to the current project. Refresher training or jobsite “toolbox talks” covering trenching and excavation safety topics, hazard identification, etc. are recommended to reinforce initial training on a periodic or as needed basis.

OSHA sees challenges in reaching the smaller contractors who may not have the resources to set up training programs for their employees. They may not be aware of the requirements of the regulations, either. In addition, as discussed earlier, we need to get past the perception that “a short time duration” is an excuse for not protecting workers. It only takes a second to get covered up or killed in a trench!

6. Why do you feel it is important to bring special emphasis to trenching and excavation hazards with a specific initiative?

To start with, it is important to note that OSHA has had a National Emphasis Program for Excavations since 1985. However, it is in need of a “work over” since the industry and OSHA have changed since 1985; which is exactly what we are working on right now. A revised OSHA NEP for trenching and Excavations will be forthcoming shortly. This revision will enhance OSHA’s focus on reducing trenching hazards through enforcement and compliance assistance methods. Finally, OSHA recently highlighted its Agency Priority Goal for 2018 which seeks to reduce trenching and excavation hazards. OSHA intends to:

- Increase awareness of excavation hazards in construction;
- Educate employers and workers on safe cave-in prevention solutions; and
- Decrease the number of trench collapses

This initiative highlights and shows a renewal of our reinvigoration of efforts on this important issue.

We continue to believe that excavation and trenching are among the most hazardous construction operations. Trenching-related fatalities and injuries continue to trouble the construction industry, despite the availability of well-known and effective control methods, such as sloping and benching, shoring, and trench boxes and shields. OSHA has emphasized trench safety in previous national and regional emphasis programs. These efforts led to decreased trench-related fatalities, including lower numbers such as 2012 (8), 2014 (11), and 2015 (11). However, 2016 was an alarming year for excavation and trench-related fatalities. OSHA observed a significant increase in the number of trench-related fatalities between 2015 and 2016. The eleven trench-related fatalities reported in 2015 increased to twenty three in 2016. This larger number of preventable fatalities was nearly double the average of the previous five years. BLS data also shows a recent increase in fatalities due to excavation and trench work. According to the most recent data available from BLS, there were 37 fatalities involving ditches, channels,

trenches, and excavations in 2016. In the previous five years, the average annual number of fatalities was under 20.

By increasing awareness of trench safety issues, OSHA hopes to reverse this troubling trend.

7. Is this initiative specifically focused towards the construction sector, or do you see it impacting other sectors as well, such as utilities, oil and gas, the public sector, etc.?

This initiative mainly affects the construction utility industry where piping and other utilities are dug into the ground. However, other industries and the public sector also rely on and support the growth of these infrastructure projects as well. For example, the pipeline and electrical grid industries, the permitting availed through counties and cities, and state laws that affect this type of work. They all are affected by the safe implementation of their projects.

8. What do you hope those involved in trenching and excavation take away from this initiative?

That OSHA is serious about protecting workers from excavation hazards. We are going to accomplish this through cooperative, educational, and traditional enforcement means. If an employer is interested in receiving information on trenching safety, OSHA has several means to provide that service to them. They can request assistance through the OSHA Consultation Program, a free service that will assist them confidentially, without penalties or obligations other than ensuring they correct any hazards observed in the process. They can also reach out to the Compliance Assistance Specialist in each of OSHA's 10 regions as well for similar assistance. For employers who do not want to do anything and continue to expose employees to excavation hazards, our enforcement program will enforce our standards. We want to work with employers to reduce this trend using all of our tools in our tool belt: cooperative and enforcement in synch with each other.

9. Do you have a schedule of events that will be taking place throughout this campaign and milestones you are hoping to achieve?

In addition to the Trench Safety Stand Down, OSHA is looking to increase stakeholder awareness of trenching hazards through several methods:

- a) We will be reaching out through a series of newly developed OSHA trenching and excavation public service announcements to be issued later this year.
- b) We are working with trade associations to increase trenching and excavation hazard awareness that include the North American Excavation Shoring Association (NAXSA) and Association of Equipment Manufacturers (AEM).

- c) We are in the process of developing a Trenching Safety Summit through NAXSA that will be forthcoming later this year.
- d) OSHA hopes that through participation in both the Trenching Safety Stand Down and the Trenching Safety Summit will bring practical workplace and engineering solutions to the forefront of the industry through both of these stakeholders.

In addition, OSHA will update & add to its online resources related to trenching and excavation hazards, available to all of these stakeholders. This includes OSHA's Trenching and Excavation page on the OSHA website (<https://www.osha.gov/SLTC/trenchingexcavation/index.html>), as well as OSHA's full range of publications related to trenching and excavation hazards (<https://www.osha.gov/pls/publications/publication.html>)

10. What are some documents those in the industry can reference for additional guidance on best practices for trenching and excavation?

Our focus will be on getting our National Emphasis Program on Excavations out into the Public Domain very shortly. In addition, we have announced that our Agency Priority Goal is reducing excavation hazards in the industry through an increase of hazard abatements over the period of FY 18 – FY 19.

In addition, OSHA offers many additional training resources for trenching and excavation safety, including publications, videos, alliance program materials, and additional resources. For the most up to date information on these materials, consult the OSHA website using the following links:

- a) Publications: <https://www.osha.gov/pls/publications/publication.html>
- b) Videos: <https://www.osha.gov/video/>
- c) Alliance Program
Materials: https://www.osha.gov/dcsp/alliances/alliance_products.html
- d) Additional Resources: https://www.osha.gov/dte/library/other_resources.html

The following documents emphasize safety and health in excavation work and are currently available electronically from OSHA, other federal entities, State Plan Programs, and stakeholders:

“Trenching and Excavation Safety”

OSHA Publication OSHA 2226-10R 2015

<https://www.osha.gov/Publications/osha2226.pdf>

“Trenching and Excavation Safety”

OSHA Fact Sheet FS-3476 9/2011

https://www.osha.gov/OshDoc/data_Hurricane_Facts/trench_excavation_fs.pdf

Also available in Spanish

https://www.osha.gov/OshDoc/data_Hurricane_Facts/trench_excavation_fs-sp.pdf

“Working Safely in Trenches”

OSHA Quick Card (2011)

https://www.osha.gov/Publications/trench/trench_safety_tips_card.pdf

Also available in Spanish

https://www.osha.gov/Publications/trench/trench_safety_tips_card.pdf#page=2

“Trenching Poster - Protect workers in Trenches”

OSHA Poster (2018)

https://www.osha.gov/Publications/trench/3215_trench_poster_eng.pdf

Also available in Spanish

https://www.osha.gov/Publications/trench/3255_trench_poster_sp.pdf

“Excavations: Hazard Recognition in Trenching and Shoring”

OSHA Technical Manual, Section V, Chapter 2

https://www.osha.gov/dts/osta/otm/otm_v/otm_v_2.html

“Trenching and Excavation”

OSHA e-tool

<https://www.osha.gov/SLTC/etools/construction/trenching/mainpage.html>

#3015 Excavation, Trenching, and Soil Mechanics

OSHA OTI Training, available 70 times to the public during 2018 at OTI Education Centers

https://www.osha.gov/dte/ecd/course_otiec_search_public.html

#3010 Excavation, Trenching, and Soil Mechanics

OSHA OTI Training for compliance officers offered annually

<http://intranet.osha.gov/dte/LAP/dte/courses.html>

1926 Subpart P Excavations

OSHA Regulatory Requirements

https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926#1926_Subpart_P

OSHA Enforcement Instruction

“Inspection Procedures for Enforcing the Excavation Standard, 29 CFR 1926, Subpart P”

OSHA Compliance Directive CPL 02-00-087, Issued 2/20/1990

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1659

OSHA Enforcement Instruction

“Special Emphasis: Trenching and Excavation”

OSHA National Emphasis Program CPL 02-00-069, Issued 9/19/1985

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1653

“Preventing Worker Deaths from Trench Cave-ins”

NIOSH Workplace Solutions Publication No. 2011-180

<https://www.cdc.gov/niosh/docs/wp-solutions/2011-208/pdfs/2011-208.pdf>

“Strategies to Prevent Trenching-Related Injuries and Deaths”

CPWR Publication, March 2006

<https://www.cpwr.com/sites/default/files/publications/krtrenching.pdf>

“Excavations – Safe practices for small business owners and contractors”

Oregon State Publication 440-2174 (2/15)

<http://osha.oregon.gov/OSHAPubs/2174.pdf>

“Excavation Safety”

Oregon State Instructor Training Workbook OR-OSHA 302

<http://osha.oregon.gov/OSHAedu/excavation-safety/1-320i.pdf>

“Safety Walkaround Checklist Trenches and Excavations”

California Tailgate Training

<http://www.elcosh.org/record/document/1345/d000246.pdf>

Kentucky Hazard Alert, January 2018

<http://www.mc.uky.edu/kiprc/files/osh/2018/trenchalert.pdf>

“NUCA Trench Safety Stand Down”

National Awareness Event June 18-23, 2018

<http://www.nuca.com/tssd>

11. Are there specific statistics we could reference within the blog to demonstrate the dangers associated with trenching and excavation?
See below:

Fatal occupational injuries involving trenching/excavation	
Characteristic	2011-2016 total
Total:	130
Employee status:	
Wage and salary workers ⁽²⁾	115
Self-employed ⁽³⁾	13
Gender:	
Women	1
Men	129
Age:	
Under 16 years	0
16 to 17 years	0
18 to 19 years	3
20 to 24 years	9
25 to 34 years	34
35 to 44 years	26
45 to 54 years	30
55 to 64 years	14
65 years and over	1
Location:	
Private residence	42
Farm	4
Mine and quarry	3
Industrial place and premises	44
Place for recreation and sport	0
Street and highway	27
Public building	0
Residential institution	0
SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, Dec 20, 2017	

Trenching/Excavation Incidents by End Use Type of Construction				
Type of Construction		Number		Percent
single family or duplex dwelling		29		24%
pipeline		19		16%
highway street road		16		13%
commercial building		10		8%
other heavy construction		10		8%
sewer/water treatment plant		9		8%
other building		8		7%
multi-family dwelling		7		6%
bridge		4		3%
powerline transmission		4		3%
excavation landfill		2		2%
manufacturing plant		1		1%
power plant		1		1%
		120		100%
Note: Out of 156 total incidents, for which 36 end use unspecified.				
Source: OSHA OIS Accident Investigation Report, FY 2013 - FY 2017				