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Trench and Excavation Daily Inspection

The competent person's daily inspection, written straight out of 29 CFR 1926 Subpart P, with the paragraph number next to every line so you can show an inspector where it came from.

Who it is for. Whoever is the designated competent person on an excavation. If nobody on your job has been designated, that is the first defect on the list.

What this sheet is, and what it is not

This is a working reproduction of the inspection duties in 29 CFR 1926 Subpart P, arranged as a form. Every line carries its paragraph number so you can check it against the regulation yourself, and you should.

It is not legal advice and it is not a substitute for reading the standard. Subpart P is short. Read it. The link is at the bottom of this sheet and the text is free.

Inspection header

JOB AND LOCATION

DATE

TIME OF INSPECTION

COMPETENT PERSON, PRINTED NAME

SIGNATURE

EXCAVATION DEPTH

EXCAVATION WIDTH AT THE BOTTOM

LENGTH OF OPEN TRENCH

SOIL CLASSIFIED AS: STABLE ROCK, TYPE A, TYPE B
OR TYPE C

PROTECTIVE SYSTEM IN USE

WEATHER SINCE THE LAST INSPECTION

When the inspection has to happen

1926.651(k)(1) requires daily inspections of the excavation, the adjacent areas and the protective systems by a competent person, looking for anything that could cause a cave-in, any indication that the protective system is failing, hazardous atmospheres, or other hazardous conditions.

The regulation names three triggers: prior to the start of work, as needed throughout the shift, and after every rainstorm or other hazard increasing occurrence. It applies whenever employee exposure can be reasonably anticipated.

1926.651(k)(2) is the part that matters when you find something. Where the competent person finds any of those conditions, exposed employees are removed from the hazardous area until the necessary precautions have been taken. Removed, not warned.

Protective systems, 1926.652

- ☐ Every employee in the excavation is protected from cave-in by an adequate protective system, 1926.652(a)(1)
- ☐ Exception claimed, if any: excavation made entirely in stable rock, 1926.652(a)(1)(i)
- ☐ Exception claimed, if any: excavation less than 5 feet deep and examination of the ground by the competent person provides no indication of a potential cave-in, 1926.652(a)(1)(ii)
- ☐ Sloping, benching, shoring or shielding matches the soil classification actually found today
- ☐ Shield or support system extends at least 18 inches above the top of any vertical side, Appendix B
- ☐ Manufacturer's tabulated data for the shield or shoring is on site, 1926.652(c)
- ☐ Shield is not being moved with employees inside it, and spoil is not being loaded over occupied areas
- ☐ Anything deeper than 20 feet has a design from a registered professional engineer, because Appendix B's configurations only reach 20 feet

Maximum allowable slopes, Appendix B, Figure B-1

Simple slope excavations 20 feet or less in depth. Horizontal to vertical.

SOIL TYPE	MAXIMUM ALLOWABLE SLOPE	ANGLE FROM HORIZONTAL
Stable rock	Vertical	90 degrees
Type A	3/4 : 1	53 degrees
Type A, short term, open 24 hours or less and 12 feet or less deep	1/2 : 1	63 degrees
Type B	1 : 1	45 degrees
Type C	1 1/2 : 1	34 degrees

If there are signs of distress, Appendix B(c)(3)(ii) requires the actual slope to be cut back at least a half horizontal to one vertical less steep than the maximum allowable. Surcharge from stored material, equipment or traffic requires a further reduction determined by the competent person.

Access and egress, 1926.651(c)

- ☐ A stairway, ladder, ramp or other safe means of egress is in every trench 4 feet or more in depth, 1926.651(c)(2)
- ☐ No employee has to travel more than 25 feet laterally to reach it, 1926.651(c)(2)
- ☐ Ladders extend far enough above the landing to be used safely and are secured
- ☐ Structural ramps used for access or egress were designed by a competent person, 1926.651(c)(1)(i)
- ☐ Ramps used in place of steps have cleats or another surface treatment against slipping, 1926.651(c)(1)(v)

Edge, spoil and loads, 1926.651(e), (f), (j)

- ☐ Excavated material and equipment kept at least 2 feet from the edge, or retained, or both, 1926.651(j)(2)
- ☐ Loose rock or soil on the face scaled, barricaded or otherwise contained, 1926.651(j)(1)
- ☐ No employee underneath a load handled by lifting or digging equipment, 1926.651(e)
- ☐ Employees standing clear of vehicles being loaded or unloaded, 1926.651(e)
- ☐ Warning system in place where mobile equipment works next to the edge and the operator cannot see it: barricades, signals or stop logs, 1926.651(f)
- ☐ Walkways provided where anybody crosses over the excavation, with guardrails where the walkway is 6 feet or more above the level below, 1926.651(l)

Atmosphere, 1926.651(g)

- ☐ Where oxygen deficiency or a hazardous atmosphere exists or could reasonably be expected, the atmosphere is tested before employees enter any excavation greater than 4 feet deep, 1926.651(g)(1)(i)
- ☐ Oxygen at or above 19.5 percent, 1926.651(g)(1)(i) and (ii)
- ☐ Flammable gas below 20 percent of the lower flammable limit, 1926.651(g)(1)(iii)
- ☐ Ventilation or respiratory protection in use where it is needed, 1926.651(g)(1)(ii)
- ☐ Retesting as often as necessary while controls are relied on, 1926.651(g)(1)(iv)
- ☐ Emergency rescue equipment readily available and attended where hazardous atmospheric conditions exist or may develop, 1926.651(g)(2)(i)
- ☐ Harness and separately attended lifeline for anybody entering a bell-bottom pier hole or similar deep confined footing excavation, 1926.651(g)(2)(ii)

Water, 1926.651(h)

- ☐ Nobody works in an excavation with accumulated or accumulating water unless adequate precautions have been taken, 1926.651(h)(1)
- ☐ Water removal equipment and the operation of it monitored by the competent person, 1926.651(h)(2)
- ☐ Diversion ditches, dikes or other means used where excavation has interrupted surface drainage, 1926.651(h)(3)
- ☐ An excavation subject to runoff from heavy rain has been re-inspected by the competent person, 1926.651(h)(3)

Surrounding conditions, 1926.651(a), (b), (d), (i)

- ☐ Surface encumbrances that create a hazard removed or supported, 1926.651(a)
- ☐ Estimated location of every utility installation determined before the excavation was opened, 1926.651(b)(1)
- ☐ Utility owners contacted and asked to locate, within local response times, 1926.651(b)(2)
- ☐ Exact location determined by safe and acceptable means as the dig approaches, 1926.651(b)(3)
- ☐ Exposed utilities protected, supported or removed while the excavation is open, 1926.651(b)(4)

- ☐ Support, bracing or underpinning where the stability of an adjoining building, wall or structure is endangered, 1926.651(i)(1)
- ☐ No excavation below the base or footing of a foundation or retaining wall unless underpinned, in stable rock, or approved by a registered professional engineer, 1926.651(i)(2)
- ☐ High visibility garments worn by anybody exposed to public vehicular traffic, 1926.651(d)

Findings and action

Every defect gets a line. A blank findings box on a day when something was wrong is worse than no sheet at all.

DEFECTS FOUND	EMPLOYEES REMOVED FROM THE HAZARDOUS AREA, YES OR NO
CORRECTIVE ACTION TAKEN	TIME WORK RESUMED
RE-INSPECTION REQUIRED, AND WHEN	COMPETENT PERSON SIGNATURE

Competent person, defined

1926.650(b) defines a competent person as one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Read the second half of that again. Authorisation to take prompt corrective measures. A man who can spot the problem but has to phone somebody for permission to pull the crew out is not a competent person under this standard, whatever his experience.

Where this comes from

Every code, standard and statute this sheet leans on. Check them.

29 CFR 1926.650, Scope, application and definitions

<https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1926/subpart-P/section-1926.650>

Where competent person, trench, protective system and shield are defined.

29 CFR 1926.651, Specific excavation requirements

<https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1926/subpart-P/section-1926.651>

OSHA construction standards, Subpart P. Current text on the electronic Code of Federal Regulations.

29 CFR 1926.652, Requirements for protective systems

<https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1926/subpart-P/section-1926.652>

Sets when cave-in protection is required and the four ways a sloping or benching system may be designed.

29 CFR 1926 Subpart P, Appendix A, Soil Classification

<https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1926/subpart-P/appendix-Appendix%20A%20to%20Subpart%20P%20of%20Part%201926>

The classification test procedure that produces Stable Rock, Type A, Type B or Type C.

29 CFR 1926 Subpart P, Appendix B, Sloping and Benching

<https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1926/subpart-P/appendix-Appendix%20B%20to%20Subpart%20P%20of%20Part%201926>

Figure B-1, the maximum allowable slopes by soil type.

Not tied to one module. Applies at any stage of a job.

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<https://dirtworkbusiness.com/library/trenching-daily-inspection>