



United States of America
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
1120 20th Street, N.W., Ninth Floor
Washington, DC 20036-3457

SECRETARY OF LABOR,
Complainant,
v.
TOM KUBRICKY CO., INC.,
Respondent.

OSHRC Docket No. 19-0232

DECISION AND ORDER

APPEARANCES:

For the Complainant:

Rosemary Almonte, Esq.
U.S. Department of Labor
New York, New York

For the Respondent:

Tom Kubricky
Tom Kubricky Co., Inc.
Gansevoort, New York

BEFORE: William S. Coleman
Administrative Law Judge

INTRODUCTION

The Respondent, Tom Kubricky Co., Inc. (TKC), repaired a broken sewer force main in the Town of Niskayuna, New York, on September 22, 2018. To make the repair, TKC dug an excavation that was about 178 feet long, 48 feet wide, and more than 20 feet deep. The deepest part of the excavation was a trench whose depth varied between 10 to 12 feet, whose width varied between 4 and 10 feet, and whose floor was less than 50 feet long.

On September 25, 2018, the Occupational Safety and Health Administration (OSHA) opened an inspection into the repair work. The inspection resulted in OSHA issuing a serious citation (Citation) to TKC on January 24, 2019 that alleged three violations (designated Items 1, 2 & 3) of OSHA's Excavations standard, 29 C.F.R. §§ 1926.650, *et. seq.*, with a total proposed penalty of \$10,798.

TKC timely contested the Citation and proposed penalty and thereby brought the matter before the independent Occupational Safety and Health Review Commission (Commission) pursuant to section 10(c) of the Occupational Safety and Health Act (Act). 29 U.S.C. § 659(c). The Commission docketed the matter on February 21, 2019.

The Secretary of Labor (Secretary) thereafter filed his formal complaint pursuant to Commission Rule 34(a), 29 C.F.R. § 2200.34(a), in which he re-alleged Item 1, amended Item 2, and withdrew Item 3, resulting in a lower proposed penalty of \$6,820 for the two remaining citation items.

Item 1 alleged a violation of § 1926.651(c)(2) for failing to provide a safe means of egress from a trench four feet or greater in depth.

Item 2, as amended by the complaint, alleged a violation of § 1926.652(a)(1) for failing to provide an adequate protective system to protect employees working in an excavation from cave-ins.

The Commission's Chief Judge assigned the matter to the undersigned for hearing and decision. The hearing was conducted in Albany, New York, on December 19-20, 2019. Post-hearing briefing was completed on March 19, 2020.

The principal issues for decision are:

- Did the Secretary prove by a preponderance of the evidence that the sloped faces at the ends of the trenched lower portion of the excavation did not provide safe means of egress from the trench? (Item 1; § 1926.651(c)(2)).

Decision: Yes.

- Did the Secretary prove by a preponderance of the evidence that the excavation lacked an adequate protective system to protect employees from cave-ins? (Item 2; § 1926.652(a)(1)).

Decision: Yes.

Because the Secretary met his burden of proof on these issues, Items 1 and 2 are affirmed.

Penalties totaling \$6,000 for the two violations are assessed.

FINDINGS OF FACT

The following facts were established by at least a preponderance of the evidence:

1. On January 24, 2019, OSHA's Area Office located in Albany, New York issued a citation and notification of penalty to TKC. The citation was related to an excavation TKC dug to repair a 6-inch underground sewer main beneath a residential street in the Town of Niskayuna (Town). The excavation and repair occurred on Saturday, September 22, 2018, in front of the house at 815 Trottingham Drive in the Town. (T. 66).

2. TKC is a corporation organized under the laws of New York, does business in New York, and is engaged in construction work. (T. 21-24). TKC is in the business of water and sewer line installation and emergency repair work for municipalities. (T. 451). Many of the materials and supplies used by TKC originated or were shipped from outside the State of New York. (T. 21-24).

3. Mr. Tom Kubricky is the president of TKC. (T. 557). He has been engaged in excavation work for 42 years, beginning as a laborer with his father's company. (T. 449-50). He is not a registered professional engineer. (T. 573).

Prior Excavations in 1978 and 2012

4. An 8-inch gravity sewer and 6-inch sanitary sewer force main were originally installed in parallel under the roadway of Trottingham Drive in 1978. (T. 105-06, 458-59, 535, 637, 648-49; Ex. R-8-2). A company owned by Tom Kubricky's father performed the original excavation and installation of the two lines in 1978. (T. 459). Tom Kubricky participated in the 1978 excavation and installation as a laborer for his father's company. (T. 459, 529).

5. When the two sewer lines were installed in 1978, an engineering firm involved in the installation created a record map that was received in evidence as Court Exhibit 1. The record map reflects the "as-built" measurements for the sewer installation, and among other things shows the depths of the lines below the surface, the relative positions of the two sewer lines, the slope of the gravity sewer, the location of each manhole for the gravity sewer and the distances between manholes, and the precise depths of the gravity sewer line at its entry and exit points for each manhole. (T. 659-664). At the location in front of 815 Trottingham Drive, the force main is positioned about 1.2 feet higher than the gravity sewer. (Court Ex. 1). (Testimonial evidence established that the force main is slightly offset so that it is not directly above the gravity sewer (T. 470-71).)

6. The record map also depicts the two-dimensional profile of a subterranean rock formation. (T. 667-68, 675). The rock formation's depth is irregular, varying from roughly twelve to eighteen feet below the surface. (Court Ex. 1).

7. When the sewer lines were installed in 1978, some of the subterranean rock in front of 815 Trottingham Drive was excavated to create a subterranean trench through which the two sewer lines would pass, at depths between 20 to 27 feet below the sloped surface. (T. 78, 95, 460, 483, 681, 683; Ex. R-8-2; Court Ex. 1). The distance between the two manholes that framed this segment of the sewer lines is 398.7 linear feet. (Court Ex. 1). Of that distance, about 330 linear

feet of the gravity sewer line was installed below the level of the rock formation. (Court Ex. 1). Over that same segment, about 270 linear feet of the force main was installed below the level of the rock formation. (Court Ex. 1). (The difference in these lengths owes to the force main being installed about 1.2 feet above the gravity sewer and to the varying elevation of the rock formation in this segment.)

8. When the sewer lines were installed in 1978, none of the soil and rock that had been excavated was used to close the excavation. (T. 462). Instead, backfill soil consisting of sand and “run of bank” (imported natural, unprocessed soil) was used to fill the excavation up to approximately 16-18 inches below the surface. Above that was 12-15 inches of crushed gravel and other material that formed the road’s sub-base, topped by 2-3 inches of asphalt pavement. (T. 461, 491, 497).

9. In 2012, TKC performed an excavation and repair on the same sewer line at a location slightly north of 815 Trottingham Drive. The backfill that was used to close the excavation in 1978 was excavated, stored, and then reused to close the 2012 excavation. (T. 462, 465, 491-92).

2018 Excavation

10. On September 21, 2018, the Town hired TKC to repair a break in the sewer force main located in front of 815 Trottingham Drive (Worksite). (T. 65-66, 143-44, 455). There was no written agreement for the repair between TKC and the Town. (T. 452-56, 600). Tom Kubricky met with the Superintendent of Water and Sewer for the Town, Mr. Matthew Yetto, at the Worksite on Friday, September 21, 2018. (T. 66-67, 535). The Town did not provide an excavation plan to TKC. (T. 97, 456). TKC started mobilizing equipment at the Worksite that afternoon.

11. The next day, Saturday, September 22, TKC opened the excavation and completed the repair around midnight. The Town closed the excavation sometime after midnight (i.e., in the early hours of Sunday morning, September 23). (T. 67-68, 137-38, 143-44, 476, 601-02).

12. TKC used its heavy equipment, known as an “excavator,” to dig the excavation. (T. 355, 519, 639). The Town provided and operated the dump trucks that removed the excavated material from the Worksite. (T. 457, 601). The Town also provided two vacuum extraction trucks and a 35-foot vacuum extraction tube that were used to suction out soil and effluent from the excavation. (T. 68, 457).

13. Mr. Yetto was at the Worksite on September 21 and 22, 2018. (T. 66-68, 456). The Town had about thirteen employees at the Worksite involved in operating the dump trucks, the vacuum trucks, and the extraction tube. (T. 518, 712-13).

14. Four TKC employees worked at the Worksite. (T. 517-18). Tom Kubricky supervised the other three TKC employees. Scott Kubricky operated the excavator. (T. 68, 517). Bob Zabielski and Forrest Kubricky worked at the bottom of the excavation, using hand tools to expose the broken pipe, and then repairing it. (T. 66-68, 275-76, 488-89, 502, 517-18, 560; Exs. C-20 & C-23).

15. TKC did not take precise measurements of the footprint of the excavation, but Tom Kubricky paced off the surface area and he estimated the footprint to be approximately 178 feet long and 48 feet wide.¹ (T. 467, 533-35, 538-39). The north end of the 2018 excavation overlapped about 20 feet of the area excavated in 2012, and so the remaining approximate 158-foot length of the excavation to the south (where Trottingham Drive ends in a T-intersection with Whitney Drive) had not been excavated since the sewer installation in 1978. (T. 78, 503-05; Court Ex. 1). No stable rock was excavated as part of the excavations done in 2012 or 2018. (T. 469, 483).

¹ The transcript incorrectly reflects the words “pasted off.” Mr. Kubricky actually said “paced it off” at page 535, line 8, when describing how he estimated the excavation’s length and width. (See Resp’t Rebuttal Br. 3).

16. The ground at the Worksite had a downslope from south to north, and so the depth of the force main relative to the excavation's edge was about 27 feet at the deeper south end, gradually decreasing to about 20 feet at the shallower north end. (Court Ex. 1).

17. From the side of the excavation, the excavator's reach was not long enough to get to the depth of the broken pipe, so TKC dug the excavation in two stages. (T. 520). TKC first excavated the approximate 178x48 feet upper portion, the deepest part of which was about fifteen feet at the south end near Whitney Drive. (T. 233, 278, 467, 482, 642). TKC then moved the excavator to the floor of the upper portion, from where it removed the backfill from a segment of the subterranean trench to get to the location of the break in the force main. (T. 67, 503-04). The excavator removed the backfill to expose the vertical sides of the subterranean trench, which were constituted of stable rock.

18. The composition of the material excavated in 2018 was a combination of sand and "run of bank" backfill from the original excavation in 1978, brown clay and blue clay excavated from the long sides of the upper portion of the excavation, and crushed stone that had formed the roadbed. (T. 74-75, 78-79, 467).

19. The excavation's wide and long upper portion had a mostly flat floor. (T. 475, 520, 648). The slope of the upper portion's faces varied between "three-quarter horizontal to one vertical" (53 degrees) and "one horizontal to one vertical" (45 degrees), except for the deeper south end of the excavation (nearest Whitney Drive) where the slope was nearly vertical. (T. 86-87, 468-69, 481, 685; Ex. C-16, C-17, C-24).

20. The segment of the subterranean trench that was excavated had a variable depth between ten and twelve feet below the floor of the excavation's upper portion. (T. 489, 648). The width at the bottom of the trench varied from about four feet at its narrowest to about ten feet at

its widest. (T. 700, 724-25; Ex. R-3-b). The sidewalls were vertical or near vertical. (T. 469, 483, 648-49; Exs. C-20 & C-23). The trench bottom appears to have been less than fifty feet long. (Ex. C-20).

21. The narrow ends of the trenched lower portion (to the north and south) were about four to six feet wide. (Ex. C-23). The ends were sloped and consisted of the backfill soil that had originally been deposited there to backfill the trench in 1978. The backfill at the ends of the trench constituted previously disturbed soil. TKC intended the sloped ends of the trench to function as earthen ramps for employee ingress and egress. (T. 551-52). The north end did not have a consistent slope angle, and photographs establish that at least part of that slope was steeper than 45 degrees. (T. 489, 553-54; Exs. C-20, C-23). The slope angle of the south end appears from photographs to have been at least 45 degrees, possibly steeper. (Exs. C-20 & C-23; T. 489).

22. After the trench was excavated and TKC employees began working at the bottom of it, the excavator was backed up against the nearly vertical south face of the upper portion of the excavation so that the trench was directly in front of the excavator. (T. 519, 644-45; Exs. C-16, C-17, C-18, C-19, C-20, C-22, C-24, R-3, R-6; Resp't Br. 5). The excavator's operator then lowered a trench box that was suspended by a chain attached to the excavator's bucket into the trench. (Ex. C-20). TKC's purpose in doing so was to shield the employees working in the trench from effluent coming out of the broken pipe. (T. 142, 317; Ex. C-20). TKC was not using the trench box for cave-in protection. (T. 317, 353). The trench box was the property of the Town. (T. 69).

23. The Town used its 35-foot vacuum extraction tube to suction out effluent and soil from the trench and into a vacuum truck. (T. 68, 457, 509-10, 712 Exs. C-18, C-20, C-23, C-24). The two TKC employees working in the trench used hand tools to fully expose the broken pipe,

shoveling the material toward the vacuum tube for suctioning out of the trench. (T. 91; Ex. C-20). When a vacuum truck became filled, the vacuum tube would be disconnected from the truck and then attached to the other vacuum truck. (T. 713). When the vacuum was turned off to make this switch, the backfill that remained in the vacuum tube would spill back into the trench. (T. 713-15).

24. An extension ladder was used in various locations in the excavation. (T. 87-88, 490; Exs. C-17, C-18). Town employees used the ladder when connecting the vacuum tube to a vacuum extraction truck. (T. 490). The ladder was not present in the trenched lower portion of the excavation when the TKC employees were working in it. (T. 87, 93, 282, 286, 490; Ex. C-20, C-23).

25. While the TKC employees were working in the trench, some of the backfill from the face of the trench's sloped north end collapsed into the trench. (T. 97, 132, 139-40). One of the employees egressed the trench by climbing up the chain from which the trench box was suspended. The backfill submerged the other employee's feet and initially immobilized him, but he freed himself and egressed the trench by traversing the sloped face of the trench's north end (the end opposite the excavator). (T. 97, 132, 139). Some of the backfill that collapsed into the trench was removed before the TKC employees reentered the trench to complete the repair. (T. 140).

26. The photograph at Exhibit C-20 shows the two TKC employees working in the trench prior to the collapse. (T. 91-92, 275-76). The photograph at Exhibit C-23 shows the employees working in the trench after the collapse. The photographs reflect the collapse having altered the slope angle and the consistency of the surface of the trench's north end. (T. 94, 96, 668-69).

27. TKC employees were able to enter and exit the trenched lower portion under non-emergency conditions by traversing either of the sloped ends. (T. 489-90).

28. The sandy backfill of the ends of the trench gave way and slid down the face of the slope when employees traversed it while entering and exiting. (T. 489, 552-53). Soil that spilled from the vacuum tube added more loose granular material to the north end, as did the collapse of backfill from that end. (T. 96, 489, 698-99; Ex. C-20, C-23).

29. After the repair was complete, TKC backfilled the trench with the previously excavated material. (T. 137-38). The Town then backfilled the remainder of the excavation, finishing after midnight (in the early morning hours of Sunday, September 23, 2018). (T. 137-38; Exs. C-14 & C-15).

The OSHA Inspection

30. On Sunday, September 23, 2018, OSHA Compliance Officer (CO) Andy Reed viewed a photograph of TKC's sewer repair on a social media news feed. (T. 167). He suspected the photograph depicted workers in an excavation without adequate cave-in protection, so he forwarded the photograph to his area office's acting area director (AD Amy Phillips). (T. 167, 181).

31. Within an hour of receiving the photograph, AD Phillips traveled to the Worksite to find the excavation closed and no workers present. (T. 182-83; Ex. C-14). AD Phillips spoke with the owner of the residence at 815 Trottingham Drive, who later provided her with photographs the owner had taken when the excavation was open. (T. 150-53, 157-58, 187-88, 184-87, 227-28; Ex. C-14, C-15, Ex. C-16, C-17, C-18, C-19). AD Phillips instructed CO Brian Engelmann to conduct an inspection and investigation, and he formally opened an inspection at TKC's office on September 25, 2018. (T. 191, 272, 405).

DISCUSSION

The Commission has jurisdiction under section 10(c) of the Act. 29 U.S.C. § 659(c). TKC has employees and is engaged in a business affecting commerce. TKC is thus an "employer" as

defined by section 3(5) of the Act. An employer, as defined by the Act, must comply with applicable occupational safety and health standards promulgated under the Act. 29 U.S.C. §§ 652(5) & 654(a)(2).

The two citation items allege violations of safety standards promulgated pursuant to section 6(b) of the Act. 29 U.S.C. § 655(b). To establish a violation of such a standard, the Secretary must show by a preponderance of the evidence that: (1) the cited standard applies; (2) there was noncompliance with its terms; (3) employees were exposed to or had access to the violative conditions; and (4) the employer had actual or constructive knowledge of those conditions. *Donahue Indus. Inc.*, 20 BNA OSHC 1346, 1348 (No. 99-0191, 2003); *Atl. Battery Co.*, 16 BNA OSHC 2131, 2138 (No. 90- 1747, 1994).

Citation Item 1 – Section 1926.651(c)(2) – Safe egress

Item 1 alleges a violation of § 1926.651(c)(2), which provides:

(c) *Access and egress*—(1) . . .

(2) *Means of egress from trench excavations.* A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet (1.22 m) or more in depth so as to require no more than 25 feet (7.62 m) of lateral travel for employees.

TKC argues that the earthen sloped faces of the two ends of the trench constituted ramps that met the requirements of the standard. This argument is rejected. The Secretary proved by a preponderance of the evidence that the earthen sloped ends of the trench were inadequate to provide reliably safe means of egress in emergency conditions.

Defined terms relevant to the analysis are set forth in § 1926.650(b) of the Excavations standard and are as follows:

Excavation means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

Trench (Trench excavation) means a narrow excavation (in relation to its length) made below the surface of the ground. In

general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet... .

Ramp means an inclined walking or working surface that is used to gain access to one point from another, and is constructed from earth or from structural materials such as steel or wood.

Faces or *sides* means the vertical or inclined earth surfaces formed as a result of excavation work.

Applicability of the Standard

Section 1926.652(c)(2) requires an employer to provide a safe means of egress for employees working in trench excavations four feet or more in depth. The standard applies regardless whether the top of trench is at the earth's surface or below the earth's surface within a larger excavation. The trench here, dug on the floor of the upper excavation, falls within the Excavation standard's definition of "trench." This is consistent with examples set forth in Appendix B, Figure B-1, of the Excavations standard, which reflect sloping systems for excavations whose faces have multiple slope angles, including excavations with "vertically sided lower portions" like the trenched lower portion of the excavation here. The cited standard applies to the trench that THC dug within the excavation (i.e., below the earth's surface). TKC does not contend otherwise.

Non-compliance with the Standard

The purpose of § 1926.651(c)(2) is to "provide employees working down in a trench with a safe means of escape from the trench in case of an emergency." *E.R. Zeiler Excavating, Inc.*, 24 BNA OSHC 2050, 2057 (No. 10-0610, 2014) citing Occupational Safety and Health Standards—Excavations, 54 Fed. Reg. 45894, 45918 (Oct. 31, 1989) (to be codified at 29 C.F.R. pt. 1926). Such emergencies "are not limited to cave-ins, but can include fires, medical emergencies, and flooding." *Id.*, citing Occupational Safety and Health Standards; Excavations, 52 Fed. Reg. 12288, 12293 (proposed April 15, 1987) (to be codified at 29 C.F.R. pt. 1926).

As noted above, TKC contends that the sloped ends of the trench were ramps that provided safe means of egress. An earthen ramp's condition is relevant to determining its adequacy as a safe means of egress in an emergency. *Joe Richter, Contractor, Inc.*, 5 BNA OSHC 2072, 2078 (applying former standard 29 C.F.R. § 1926.652(h) (1975), which required employers to provide “an adequate means of exit” for employees working in a trench four feet or more in depth, and stating that the egress “must be adequate for emergency escape as well as routine egress from the trench” and that “when determining the adequacy of an earth ramp as a means of egress the condition of the ramp and its accessibility, as well as its slope, must be considered”).

The soil at both ends of the trench was previously disturbed soil and thus was either Type B or Type C soil.² The surface of the trench's sloped ends was granular and soft—not conducive to reliably providing solid footing in an emergency. Tom Kubricky described the soil as sliding down the slope when a worker traversed it for routine ingress and egress. (T. 489-90). The surface of the north end became even more unstable (a) from backfill that spilled out of the vacuum tube into the egress area, and (b) from backfill that had collapsed into the trench on that end. (Findings of Fact ¶¶ 23, 25, 28).

Egress via the sloped south face of the trench was partially obstructed by the excavator being positioned at the top of the trench's south end. (Findings of Fact, ¶ 22; Ex. C-20).

Neither end of the trench had a consistent slope angle. (Findings of Fact, ¶ 21). (Ex. C-20). The lower part of the north end's face before the backfill collapsed appears to be steeper than the upper part and most likely steeper than 45 degrees. (*Compare* Ex. C-20 with Ex. C-23). When

² Appendix A of the Excavations standard establishes a soil classification system for use in determining the adequacy of sloping or benching systems for protecting employees from cave-ins. Type B soil is defined to include “[p]reviously disturbed soils except those which would otherwise be classified as Type C soil.” 29 C.F.R. pt. 1926, subpt. P, App. A., para. (b).

backfill collapsed into the trench and the employees needed to egress quickly (since they could not know whether there would be more backfill collapsing into the trench) one employee became temporarily immobilized in the material.³ After freeing himself, he egressed by traversing some of the material that had collapsed into the trench's north end. The other employee egressed by climbing up the chain from which the trench box was suspended inside the trench. (Findings of Fact ¶ 25). The way the two employees egressed after the collapse demonstrates the deficiency of the trench's earthen north and south faces in providing a reliably safe means of egress in an emergency situation.

The sloped earthen ends of the trench were inadequate to provide safe egress in an emergency situation due to their uneven, soft, and granular surface, irregular slope angles, and the obstruction created by the position of the excavator at the south end. The Secretary established that TKC did not comply with the safe egress requirement of § 1926.651(c)(2).

Employee Exposure

Two TKC employees, Forrest Kubricky and Bob Zabielski, worked for more than two hours in the trench without safe means of emergency egress. (T. 488-89). TKC's president, Tom Kubricky, was also exposed to this hazardous condition when he trekked to the bottom of the trench. The TKC employees were exposed to the violative condition.

Employer Knowledge

The Secretary must prove the employer either knew, or with the exercise of reasonable diligence could have known, of the violative condition. *Revoli Constr. Co.*, 19 BNA OSHC 1682,

³ Whether the collapse of backfill into the trench constituted a "cave-in" as that term is defined in the OSHA's Excavations standard was not litigated by the parties and is not adjudicated in this Decision. The term "cave-in" is defined in pertinent part to mean "the separation of a mass of soil or rock material from the side of an excavation ... and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person." § 1926.650(b).

1684 (No. 00-0315, 2001). The employer’s knowledge is directed to the physical condition that constitutes a violation. *Phoenix Roofing, Inc.*, 17 BNA OSHC 1076, 1079-1080 (No. 90-2148, 1995) (citations omitted) *aff’d*, 79 F.3d 1146 (5th Cir. 1996). Knowledge may be imputed to the employer “through its supervisory employee.” *Am. Eng’g & Dev. Corp.*, 23 BNA OSHC 2093, 2095 (No. 10-0359, 2012) quoting *Access Equip. Sys.*, 21 BNA OSHC 1400, 1401 (No. 03-1351, 2006). Tom Kubricky was at the worksite directing the work. He knew that TKC employees were working in the trench, and he had actual knowledge of the condition of its sloped ends, having entered the trench himself via the north end. (T. 488-89). (Findings of Fact ¶ 14). As TKC’s president and onsite supervisory employee, his actual knowledge of the violative condition is imputed to TKC.

Citation item 1 is affirmed. The Secretary proved the cited standard was applicable, the requirements of the cited standard were not met, TKC’s employees were exposed to the violative condition, and that TKC had knowledge of the violative condition.

Citation Item 2 – Section 1926.652(a)(1) – Protection from cave-ins

Item 2, as amended, alleges a violation of 29 C.F.R. § 1926.652(a)(1), which provides:

- (a) *Protection of employees in excavations.* (1) Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with paragraph (b) or (c) of this section except when:
- (i) Excavations are made entirely in stable rock; or
 - (ii) Excavations are less than 5 feet (1.52m) in depth and examination of the ground by a competent person provides no indication of a potential cave-in.

The term “protective system” is defined in § 1926.650(b) as follows:

Protective system means a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide

the necessary protection.

The terms “sloping system” and “benching system” are defined in § 1926.650(b) as follows:

Sloping (Sloping system) means a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

Benching (Benching system) means a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

The Secretary alleges the excavation lacked an adequate protective system. The Secretary’s theory of non-compliance is that the excavation was more than 20 feet deep and its sloping system was not designed by a registered professional engineer. Consequently, the excavation did not meet with the requirement of the Excavations standard that any excavation deeper than 20 feet be designed by a registered professional engineer.

TKC’s theory of compliance is that the upper portion of the excavation and the trenched lower portion were separate and distinct excavations, each less than 20 feet deep, and that the separate excavations each met the technical requirements of § 1926.652(b)(2) (Option 2) for excavations no deeper than 20 feet.

Applicability of the Standard

Unless one of the exceptions set forth in subparagraphs (i) or (ii) of § 1926.652(a)(1) applies, an employer must provide a protective system for its employees working in any excavation. TKC does not contend that the exception of subparagraph (ii) has any application to any portion of the excavation here. But consistent with its “two excavations” approach, TKC

contends that no protective system was required for the trenched lower portion because it meets the “stable rock” exception of subparagraph (i). (Resp’t Br. [revised] 5). This argument is rejected.

The term “stable rock” is defined in pertinent part to mean “natural solid mineral material that can be excavated with vertical sides and will remain intact while exposed...” § 1926.650(b). The soil at the sloped ends of the trench was sandy and non-cohesive—it slid down the face when workers traversed it to enter and exit the trench. (T. 489; Resp’t Rebuttal Br. 6). The sloped ends of the trench failed to “remain intact while exposed,” conclusively establishing that the trench was not “made entirely in stable rock” as the exception requires. The trenched lower portion does not meet the requirements of the “stable rock” exception of § 1926.652(a)(1)(i).

Non-compliance with the Standard

Permissible Sloping or Benching Systems under § 1926.652(b)

Paragraph (b) of § 1926.652 specifies four options for the design of sloping or benching systems that would meet the requirement of paragraph (a) to provide an adequate protective system.⁴

“Two excavations” Approach

As noted above, TKC’s theory of compliance is that the sloping system of the excavation’s upper portion met Appendix B’s requirements for excavations no deeper than 20 feet, and that the trenched lower portion met Appendix B’s sloping requirements for “stable rock” for excavations no deeper than 20 feet.

⁴ Paragraph (b) of § 1926.652 provides:

(b) *Design of sloping and benching systems.* The slopes and configurations of sloping and benching systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of paragraph (b)(1); or, in the alternative, paragraph (b)(2); or, in the alternative, paragraph (b)(3), or, in the alternative, paragraph (b)(4)....

TKC's "two excavations" approach is rejected. Rather, the greater excavation must be regarded as a single excavation for purposes of determining whether it conforms to the technical sloping or benching requirements of § 1926.652(b). And because the greater excavation is deeper than 20 feet, § 1926.652(b) does not permit layered portions of the excavation to be independently assessed against the technical requirements for sloping or benching systems under § 1926.652(b)(2) (Option 2).

The plain text of the Excavations standard does not permit the application of the standard in the manner that TKC argues. The standard defines the term "excavation" to be "any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal." § 1926.650(b). Here, there were not two openings into the earth's surface. Rather, there was a single excavated opening that had a top-to-bottom vertical depth that varied from about 20 to 27 feet.

In the standard's Appendix A, titled "Soil Classification," addresses excavations in layered soils. The term "layered system" is defined in paragraph (b) of Appendix A in relevant part as follows: "*Layered system* means two or more distinctly different soil or rock types arranged in layers...." Paragraph (c)(4) allows for individual classification of soils in layered systems under certain limited circumstances, providing as follows: "In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer."

In the standard's Appendix B, titled "Sloping and Benching," paragraph (4) provides: "(4) *Configuration*. Configurations of sloping and benching systems shall be in accordance with Figure B-1." Figure B-1 includes Figure B-1.4, which is captioned "Excavations Made in Layered Soils." Figure B-1.4 provides examples of excavations in layered soils complying with paragraph (c)(4) of Appendix A, declaiming first that "[a]ll excavations *20 feet or less in depth* made in

layered soils shall have a maximum allowable slope for each layer as set forth below” (emphasis added), and then concluding that “[a]ll other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).”

Thus, although under paragraph (c)(4) of Appendix A individual classification of layered soils may under certain circumstances be permitted for purposes of compliance with technical sloping requirements of § 1926.652(b), under Figure B–1.4 of Appendix B such individual classification of layered soils is not permitted for excavations deeper than 20 feet.

Even if the Excavations standard allowed the “two excavations” approach that TKC argues, neither the wide upper portion nor the trenched lower portion would meet the technical requirements of any of the four options permitted by § 1926.652(b), as discussed below.

Option 1 — § 1926.652(b)(1)

Option 1 is set forth in § 1926.652(b)(1) and requires an excavation to be sloped no steeper than 34 degrees (one-half horizontal to one vertical) and according to the configurations set forth in Appendix B.⁵ TKC does not contend that any of the faces of the excavation were as flat as Option 1 requires (34 degrees).

In any event, as set forth in the excavation standard’s Appendix B, Figure B–1.3 (captioned “Excavations Made in Type C Soil”), paragraph 1 thereof provides that the 34 degree slope permitted by Option 1 pertains only to “excavations 20 feet or less in depth,” and paragraph 3

⁵ Option 1 is contained in § 1926.652(b)(1), which provides:

(1) *Option (1)—Allowable configurations and slopes.*

(i) Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the employer uses one of the other options listed below.

(ii) Slopes specified in paragraph (b)(1)(i) of this section, shall be excavated to form configurations that are in accordance with the slopes shown for Type C soil in appendix B to this subpart.

thereof provides that “[a]ll other sloped excavations shall be accordance with the other options permitted in § 1926.652(b)” (i.e., Options 2, 3 or 4). 29 C.F.R. Pt. 1926, Subpt. P, App. B, Table B-1, Figure B–1.3, paras. 1 and 3.

Figure B–1.3 in Appendix B reflects OSHA’s stated intent, articulated in the preamble to the Excavations standard, to “require the expertise of an engineer *in all cases*” involving excavations deeper than 20 feet. 54 Fed. Reg. at 45902 (emphasis added). The standard’s Appendix F, titled “Selection of Protective Systems,” also articulates this intent, stating as follows: “Protective systems for excavations more than 20 feet in depth must be designed by a registered professional engineer in accordance with § 1926.652(b) and (c).”

The excavation did not meet Option 1’s requirements for a protective sloping or benching system.

Option 2 -- § 1926.652(b)(2)

Option 2 requires an employer to configure sloping according to soil type (as set forth in Appendix A) and the degree of slope for that soil type (as set forth in Appendix B).⁶ Appendix B’s paragraph (c)(2) provides that the “maximum allowable slope for a soil or rock deposit shall be determined from Table B–1 of this Appendix.” Table B-1 is titled “Maximum Allowable Slopes.”⁷ By its terms, Table B–1 provides slope angles for excavations “less than 20 feet deep.”

⁶ Option 2 is contained in § 1926.652(b)(2), which provides:

(2) *Option (2)—Determination of slopes and configurations using Appendices A and B.* Maximum allowable slopes, and allowable configurations for sloping and benching systems, shall be determined in accordance with the conditions and requirements set forth in appendices A and B to this subpart.

⁷ Paragraph (b) of Appendix B defines the term “maximum allowable slope” to mean “the steepest incline of an excavation face that is acceptable for the most favorable site conditions as protection against cave-ins, and is expressed as the ratio of horizontal distance to vertical rise (H:V).”

As set forth in footnote 3 to Table B–1, the “sloping or benching for excavations greater than 20 feet shall be designed by a registered professional engineer.”⁸ Table B–1 provides in its entirety as follows:

TABLE B-1
MAXIMUM ALLOWABLE SLOPES

SOIL OR ROCK TYPE	MAXIMUM ALLOWABLE SLOPES (H:V) ^[1] FOR EXCAVATIONS LESS THAN 20 FEET DEEP ^[3]
STABLE ROCK	VERTICAL (90°)
TYPE A ^[2]	3/4:1 (53°)
TYPE B	1:1 (45°)
TYPE C	1½:1 (34°)

NOTES:

1. Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.
2. A short-term maximum allowable slope of 1/2H:1V (63°) is allowed in excavations in Type A soil that are 12 feet (3.67 m) or less in depth. Short-term maximum allowable slopes for excavations greater than 12 feet (3.67 m) in depth shall be 3/4H:1V (53°).
3. Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

29 C.F.R. Pt. 1926, Subpt. P, App. B, Table B-1.

TKC suggests that Matthew Yetto, the Town’s Superintendent of Water and Sewer, is a registered professional engineer and that his involvement in the sewer repair met the standard’s requirement that a registered professional engineer design the sloping or benching systems for excavations deeper than 20 feet. (Resp’t Br. [revised] 4; Resp’t Rebuttal Br. 1-2).

⁸The Excavations standard defines the term “Registered Professional Engineer” in pertinent part to mean “a person who is registered as a professional engineer in the state where the work is to be performed....” 29 C.F.R. § 1926.650(b).

Tom Kubricky testified that he believed Mr. Yetto was a registered professional engineer (T. 455-56), although he did not explain how he came to understand this. Mr. Yetto testified as part of the Secretary's case in chief, and no one elicited any testimony from him respecting his educational background or professional credentials. Also, no one elicited any testimony from him about whether he had a role in the design of the excavation's protective system. Nevertheless, for purposes of analysis Mr. Yetto will be regarded as being a registered professional engineer in the state of New York.

Nothing in Mr. Yetto's testimony suggests that he assisted TKC in devising an adequate protective system. Rather, Yetto testified affirmatively that the Town did not provide TKC with any plans (T. 97), and Mr. Kubricky corroborated that testimony. (T. 456). Mr. Kubricky testified that TKC dug the excavation to conform to OSHA requirements as he understood them after decades of professional experience in excavating. (T. 598-99). Mr. Yetto did not design the excavation, provide an excavation plan to TKC, or approve TKC's scheme for a protective system, either orally or in writing. (Findings of Fact ¶ 10). The excavation, not having been designed by a registered professional engineer, did not meet Option 2's requirements for a protective system for excavations deeper than 20 feet.

Returning to TKC's "two excavations" approach, neither the upper portion nor lower trenched portion of the excavation, if assessed against the requirements of Option 2 as separate excavations not deeper than 20 feet, would meet Option 2's technical requirements.

As regards the upper portion, the two long faces that paralleled the path of the sewer lines shall be deemed as having been constituted of Type A soil and to have been sloped no steeper than

53 degrees.⁹ Accordingly, those faces of the upper portion would be deemed to have conformed to the requirements of Table B-1 for excavations no deeper than 20 feet in Type A soil.

However, TKC acknowledges that the soil at the south and north ends of the upper portion were constituted of previously disturbed soil (at the south end, with the backfill from the 1978 excavation; and at the north end, with the backfill from the 2012 excavation). (Resp't Rebuttal Br. 6, citing T. 466-67). Thus, the soil on those ends had to have been either Type B or Type C soil because it was previously disturbed. *See* Appendix A of the Excavations standard, paragraph (b) (defining Type B soil to include “[p]reviously disturbed soils except those which would otherwise be classified as Type C soil.”).

For purposes of this analysis, the soil at the north and south ends of the upper portion will be deemed to have been Type B soil. Table B-1 of Appendix B requires the slope of an excavation no deeper than 20 feet in Type B soil to be no steeper than 45 degrees. Tom Kubricky testified generally that the sides of the upper portion were sloped between 45 and 53 degrees (T. 468), and TKC argues that the slope of the north end “appear[s] to be about” 45 degrees based on the photograph at Exhibit C-24. (Resp't Br. [revised] 5). Even though there was no testimony regarding the slope angle of the north end, for purposes of analysis it is deemed to have been no steeper than 45 degrees and thus would have conformed to the sloping requirement prescribed by Table B-1 for excavations in Type B soil no deeper than 20 feet.

TKC acknowledges that the slope of the previously disturbed soil of the south face of the

⁹ Mr. Kubricky testified that he used an instrument to test the soil of these faces, and he determined it was Type A soil, meaning that TKC had excavated up to or beyond the margins of the original excavation in 1978. (The backfill of the original excavation could not be classified as Type A soil as defined in Appendix A, paragraph (b) of the Excavations standard because it was “previously disturbed” soil). (T. 466-68, 500-03). There was no substantial evidence controverting this testimony, so it is accepted as accurate for purposes of the analysis.

upper portion (nearest Whitney Drive) was vertical or nearly vertical. (Resp't Rebuttal Br. 6-7). TKC does not argue that the slope at the south end of the upper portion conformed to Table B-1, and indeed any such argument would have no evidentiary support. However, TKC argues, in essence, that no employees were exposed to a cave-in hazard from that nearly vertical face because the excavator was "against the slope and there is no evidence in any photo exhibit or testimony that workers were in this area." (Resp't Br. [revised] 5).

This argument is rejected. Exhibit C- 20 reflects two TKC employees (Tom Kubricky and the operator of the excavator, Scott Kubricky) standing at the edge of the lower portion's south end near the excavator's left track, while the other two TKC employees are in the trench and inside the trench box that is suspended from the excavator's bucket. The photograph also shows the rear of the excavator backed up to the excavation's south face. This evidence establishes that for all four TKC employees it was "reasonably predictable either by operational necessity or otherwise (including inadvertence), that employees have been, are, or will be in the zone of danger" presented by the previously disturbed soil of the upper portion's nearly vertical south face. *Briones Util. Co.*, 26 BNA OSHC 1218, 1219 (No. 10-1372, 2016) (finding that an employee working in a trench that was only partially protected from cave-in had access to the unprotected portion of trench). The upper portion of the excavation, viewed independently of trench, did not meet the requirements of Table B-1, and would not have met the requirements of Option 2 for an excavation no deeper than 20 feet.

With respect to whether the trenched lower portion, evaluated as a stand-alone excavation not deeper than 20 feet, would meet the requirements of Table B-1, that argument fails also. For purposes of analysis, the long sides off the lower portion are assumed to have been constituted

entirely of stable rock.¹⁰ But as previously discussed, the soil of the sloped ends of the trench could not be classified higher than Type B, so under Table B-1 these slopes could be no steeper than 45 degrees.¹¹ The photographs at Exhibits C-20 and C-23 depict two TKC employees working at the bottom of the lower portion and depict the sloped surfaces of both the north and south ends. Even though the angles from which the photographs were taken make it difficult to discern with precision the exact slope angle of the ends of the trench, the photographs are reasonably susceptible of the conclusion that at least portions were steeper than 45 degrees. Therefore, the sloped ends of the lower portion would not meet the requirements of Table B-1 that for excavations in Type B soil no deeper than 20 feet, the face be no steeper than 45 degrees.

Option 3 -- § 1926.652(b)(3)

Option 3 requires sloping to be done in accordance with tabulated data, such as tables and charts, in a writing that identifies the registered professional engineer who approved the data.¹² There is no evidence that TKC relied upon any tabulated data, and TKC does not contend otherwise. The excavation did not meet Option 3's requirements for a protective system.

¹⁰ Mr. Kubricky went in the trench at some point, and he testified that its vertical sidewalls were constituted entirely of stable rock. (T. 472, 483, 488). There was no substantial evidence to controvert that testimony, so it is deemed true for purposes of analysis.

¹¹ Considering Tom Kubricky's description that when workers entered and exited via a sloped end, sand slid down its face (T. 489), and considering also that there was a collapse of material from the north end, it seems very likely the soil on the north end was actually Type C.

¹² Option 3 is contained in § 1926.652(b)(3), which provides in relevant part:

(3) *Option (3)—Designs using other tabulated data.* (i) Designs of sloping or benching systems shall be selected from and be in accordance with tabulated data, such as tables and charts.

(ii) The tabulated data shall be in written form and shall include all of the following: . . .

(iii) At least one copy of the tabulated data which identifies the registered professional engineer who approved the data....

Option 4 -- § 1926.652(b)(4)

Option 4 requires that if Options 1 through 3 are not utilized, a registered professional engineer must approve the benching and sloping systems used in an excavation.¹³ As discussed in connection with Option 2, TKC did not use a written design that was approved by a registered professional engineer. The excavation did not meet Option 4's requirements for a protective system.

*Permissible Support Systems, Shield Systems and
Other Protective Systems under § 1926.652(c)*

An employer may comply with the requirements of the cited standard, § 1926.652(a), by implementing one of the four options set forth at 29 C.F.R. § 1926.652(c).¹⁴ TKC does not contend, and no evidence establishes, that the excavation conformed with any of the four options set forth in § 1926.652(c)(1)—(4). With respect to TKC's use of the Town's trench box in the trenched lower portion of the excavation, TKC used the trench box to protect the employees from effluent coming from the broken pipe, not to protect the employees from a cave-in. (Findings of

¹³ Option 4 is contained in § 1926.652(b)(4), which provides in relevant part:

(4) *Option (4)—Design by a registered professional engineer.* (i) Sloping and benching systems not utilizing Option (1) or Option (2) or Option (3) under paragraph (b) of this section shall be approved by a registered professional engineer.

(ii) Designs shall be in written form and shall include at least the following: . . . (C) The identity of the registered professional engineer approving the design.

¹⁴ Paragraph (c) of § 1926.652 provides:

(c) *Design of support systems, shield systems, and other protective systems.* Designs of support systems shield systems, and other protective systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of paragraph (c)(1); or, in the alternative, paragraph (c)(2); or, in the alternative, paragraph (c)(3); or, in the alternative, paragraph (c)(4)

Fact ¶ 22).

Accordingly, for the reasons described above, the excavation did not meet the requirements of any of the options for an adequate protective system permitted under § 1926.652(a)(1). The Secretary established that TKC failed to comply with the cited standard in the manner alleged.

The Worksite was a single excavation deeper than 20 feet without an adequate protective system, and TKC thus failed to comply with the requirements of § 1926.652(a)(1).

Employee Exposure and Employer Knowledge

All four TKC employees worked in the non-compliant excavation and were thereby exposed to that violative condition.

Tom Kubricky was present at the Worksite throughout the repair project supervising the other TKC employees. As TKC's president and onsite supervisory employee, his actual knowledge of the violative condition of the excavation is imputed to TKC.

The Secretary proved all elements of his burden of proof respecting the alleged violation of § 1926.652(a)(1), and so citation Item 2 is affirmed.

Serious Classifications & Penalty Assessments

The Secretary alleged that each citation item was serious in nature. The Act provides that a violation is serious if there was a substantial probability that death or serious physical harm could result from the violative condition. 29 U.S.C. § 666(k); *Consol. Freightways Corp.*, 15 BNA OSHC 1317, 1324 (No. 86-351, 1991). "This does not mean that the occurrence of an accident must be a substantially probable result of the violative condition but, rather, that a serious injury is the likely result if an accident does occur." *Oberdorfer Indus. Inc.*, 20 BNA OSHC 1321, 1330-31 (No. 97-0469, 2003) (consolidated) (citation omitted). Cave-in events, and the inability of a worker to egress from a trench excavation in an emergency, can result in death and serious physical injury. (T. 200-01, 206-07). Both citation items are properly classified as serious.

“Once a citation is contested, the Commission has the sole authority to assess penalties.” *Valdak Corp.*, 17 BNA OSHC 1135, 1138 (No. 93-0239, 1995) (citation omitted), *aff’d*, 73 F.3d 1466 (8th Cir. 1996). The Commission owes no deference to the Secretary’s calculation of proposed penalties. *See Hern Iron Works*, 16 BNA OSHC 1619, 1621 (No. 88-1962, 1994).

Section 17(j) of the Act requires the Commission to give due consideration to four criteria in assessing penalties: the size of the employer's business, the gravity of the violation, the employer's good faith, and its prior history of violations. *Valdak*, 17 BNA OSHC at 1138. The maximum penalty allowed for the two serious violations here is \$13,260 for each. 29 C.F.R. § 1903.15(d)(3) (2019) (setting forth adjusted maximum civil penalties for penalties that the Secretary proposes after January 23, 2019).¹⁵

For Item 1, the safe egress violation, the Secretary proposes a penalty of \$2,772. The Secretary assessed the gravity of the violation to be “moderate” (“high severity” of a potential injury, but “lesser probability” of an injury occurring) in calculating a gravity-based penalty amount. The Secretary reduced that figure by 70% to account for TKC’s small size. (T. 203-04, 206; Ex. C-3 at 1). The Secretary made no adjustments to account for good faith or prior history. (T. 205).

The undersigned concurs with the Secretary’s penalty calculation for the egress violation, except that the Secretary’s proposed penalty is reduced further by approximately 10% for prior history because TKC has not been previously cited for any violations. (T. 205). The penalty assessed for item 1 is \$2,500.

¹⁵ In proposing penalties, the Secretary used as a starting point the lower maximum penalty of \$12,934 for a serious violation for penalties proposed between January 2, 2018 and January 23, 2019, rather than the higher maximum of \$13,260 permitted for penalties proposed after January 23, 2019. (T. 208; Ex. C-3 at 3). 29 C.F.R. § 1903.15(d)(3) (2018). The undersigned will also assess a penalty based on the same lower maximum figure.

For Item 2 involving the lack of adequate cave-in protection, the Secretary proposed a penalty of \$3,888. The Secretary assessed the gravity of the violation to be “high” (“high severity” of potential injury, with “greater probability” of injury occurring) in calculating a gravity-based penalty amount. The Secretary again reduced that figure by 70% to account for TKC’s small size. (T. 208-09; Ex. C-3 at 4). The Secretary provided no adjustment for good faith or history. (T. 209-10).

The undersigned concurs with the Secretary’s penalty calculation for the cave-in protection violation, except that the Secretary’s proposed penalty is reduced further by approximately 10% for prior history because TKC has not been previously cited for any violations. (T. 210). The penalty assessed is \$3,500.

ORDER

The foregoing decision constitutes findings of fact and conclusions of law in accordance with Commission Rule 90(a)(1). 29 C.F.R. § 2200.90(a)(1). If any finding of fact is in actuality a conclusion of law or any legal conclusion stated is in actuality a finding of fact, it shall be deemed so, any label to the contrary notwithstanding. Based upon the foregoing findings of fact and conclusions of law, it is ORDERED that:

1. Item 1 of the Citation, alleging a serious violation of 29 C.F.R. § 1926.651(c)(2), is AFFIRMED, and a penalty of \$2,500 is assessed.

2. Item 2 of the Citation as amended, alleging a serious violation of 29 C.F.R. § 1926.652(a)(1), is AFFIRMED, and a penalty of \$3,500 is assessed.

3. Item 3 of the Citation, alleging a serious violation of 29 C.F.R. § 1926.652(c)(2)(i), having been withdrawn by the Secretary, is VACATED.

/s/
WILLIAM S. COLEMAN
Administrative Law Judge

Dated: September 28, 2020