

# UNITED STATES OF AMERICA OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

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SECRETARY OF LABOR,

Complainant.

v.

OSHRC Docket No. 92-3024

DIGIOIA BROTHERS EXCAVATING, INC.,

Respondent.

## **DECISION**

BEFORE: WEISBERG, Chairman; FOULKE and MONTOYA, Commissioners. BY THE COMMISSION:

The issue presented here is whether DiGioia Brothers Excavating, Inc. ("DiGioia") violated two safety and health standards promulgated under the Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651-678 ("the Act"). We must decide whether DiGioia's pipeline trench exceeded the excavation standards' slope and bench limits, and whether DiGioia adequately and competently inspected the trench. We must also decide whether, if affirmed, these two violations were serious.

On July 30, 1992, Occupational Safety and Health Administration ("OSHA") Compliance Officer ("CO") James Denton inspected a worksite in Brecksville, Ohio, where DiGioia was installing residential water and sewer lines. As a result of that inspection, the Secretary issued a citation on September 9, 1992, alleging that DiGioia committed serious violations of OSHA's excavation standards, and proposing penalties totalling \$6000.

1995 OSHRC No. 24

Administrative Law Judge Nancy J. Spies affirmed the citation, and assessed penalties totalling \$1500. For the reasons set forth below, we affirm the judge's decision.

# I. TRENCH PROTECTION--29 C.F.R. § 1926.652(a)(1)<sup>1</sup>

The OSHA excavation standards provide that where an employer chooses its slope and bench system by using the classification and design option set forth at 29 C.F.R. § 1926.652(b)(2),<sup>2</sup> as did DiGioia, the following sloping angle and bench height limits apply: "Type A" soils, with an unconfined compressive strength of 1.5 tons per square feet ("tsf") or greater, generally must be sloped at an angle that does not exceed 53 degrees;<sup>3</sup> "Type B" soils, with an unconfined compressive strength greater than 0.5 tsf but less than 1.5 tsf, must be more protectively sloped at an angle not exceeding 45 degrees; and "Type C" soils, with an unconfined compressive strength of 0.5 tsf or less, must be sloped at an angle not exceeding 34 degrees.<sup>4</sup> The standard states, however, that "no soil is Type A if . . . [it] has been previously disturbed." (Subpt. P., App. A(b).) The bench height limit for any soil with an unconfined compressive strength above 0.5 tsf is 4 feet.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup>That standard provides:

<sup>§ 1926.652</sup> Requirements for protective systems.

<sup>(</sup>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 . . . .

<sup>&</sup>lt;sup>2</sup>That standard provides:

<sup>§ 1926.652</sup> Requirements for protective systems.

<sup>(</sup>b) Design of sloping and benching systems.

<sup>(2)</sup> 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.

 $<sup>^{3}</sup>$ A 63-degree angle for this soil type is permitted for a short term simple (unbenched) slope (Subpt. P., App. B(c)(4), Table B-1, n.2).

<sup>&</sup>lt;sup>4</sup>Subpt. P., App. A(b); Subpt. P., App. B(c)(4), Table B-1.

<sup>&</sup>lt;sup>5</sup>Subpt. P., App. B(c)(4), Figure B-1.1(2).

During his inspection, CO Denton measured the pipeline trench dug by DiGioia as 8 feet 8 inches deep and 25 feet long, with one 5-foot, 1-inch-high wall bench and inside slopes of 50 and 60 degrees at the point of exposure. Denton observed that the trench soil was cohesive clay, with little variation or evidence of foreign material such as rock or gravel, and was told by DiGioia's foreman-operator that the worksite soil contained backfill. He tested the unconfined compressive strength of the soil with ten applications of a pocket penetrometer to a sample taken from the side wall of the excavation. The penetrometer readings ranged from .5 to 1.5 tsf, with the majority between .5 and 1.0 tsf. Only two or three of the readings were at or near 1.5 tsf, the figure associated with Type A soil.

DiGioia never mechanically tested the trench soil, but its president, Nick DiGioia, tested the soil's unconfined compressive strength manually, finding that the ground was so hard he couldn't put his thumb into it. On two occasions approximately four and six months later, Solar Testing Laboratories ("STL") evaluated the worksite soil for DiGioia. STL visually inspected the soil from five test pits and collected three shelby tube samples for laboratory unconfined compressive strength tests. To avoid damage to the recently laid pipelines, STL's soil samples were not dug from the precise location of the original trench, but from test sites not more than 20 feet away. STL described the test pit soils as silty clay fill, containing particles of asphalt, gravel, sand, and cobbles, but found variations among them in color and foreign material content. The unconfined compressive strength test results on the three shelby tube samples were 1.73 tsf, 2.72 tsf and 3.08 tsf. Sixty-two pocket penetrometer readings obtained on the same samples ranged from 1.0 tsf to 4.5 tsf, with at least thirteen readings below 1.5 tsf and averaged readings ranging from 1.20 tsf to 4.08 tsf.

Although the Commission has accepted evidence of soil type obtained from reexcavations, we find that DiGioia's re-excavation evidence is insufficiently related to the conditions present in the original trench to be indicative of its soil characteristics. *See, e.g., Broshear Contractors, Inc.*, 16 BNA OSHC 2094, 2097, 1994 CCH OSHD ¶ 30,591, pp. 42,366-67 (No. 91-2125, 1994), petition for review filed, No. 94-1768 (D.C. Cir. Dec. 22, 1994)(proximity to original excavation, change in physical conditions over time, and evidence that re-excavation reasonably re-creates original are factors to consider when determining weight accorded to re-excavation evidence). STL's unconfined compressive strength tests

were conducted over six months after the original excavation, during which time some natural compaction could have occurred. In addition, although STL's shelby tube samples were collected within 20 feet of the original trench, it appears that the worksite soil varied considerably over that small distance. Thus, STL noted observable variations in the color and foreign material content among the five test pits dug just 16 to 20 feet apart from each other. Moreover, STL identified particles of asphalt, gravel, sand, and cobbles in the soil it examined, none of which was observed by Denton or Nick DiGioia in the trench itself. Finally, STL's own engineer testified that soil, including fill, can lack uniformity over a large area. Based on these factors, we accord little or no weight to STL's soil tests.

Aside from the re-excavation evidence, DiGioia relies only on its visual and "thumb penetration" observations to support its claim that the soil had an unconfined compressive strength of at least 1.5 tsf. The Secretary's evidence consists of CO Denton's penetrometer tests, a majority of which indicate that the compressive strength of the trench soil was below 1.5 tsf. On this record, we find that a preponderance of the evidence shows that the unconfined compressive strength of the trench soil was below 1.5 tsf and therefore it was not Type A soil. Accordingly, the trench slopes should not have exceeded 45 degrees, and we find that DiGioia violated § 1926.652(a)(1) for sloping the trench walls at 50 and 60 degrees.<sup>6</sup> Alternatively, we find that even assuming it was Type A soil, DiGioia violated § 1926.652(a)(1) because its 5-foot, 1-inch-high trench wall bench exceeded the 4-foot height limit applicable to both Type A and Type B soils.<sup>7</sup>

A violation is serious under section 17(k) of the Act, 29 C.F.R. § 666(k), if "an accident is possible and there is a substantial probability that death or serious physical harm could

<sup>&</sup>lt;sup>6</sup>Based on our conclusion that Respondent failed to establish that the unconfined compressive strength of the trench soil was 1.5 tsf or greater, we need not pass on the question whether previously disturbed soil with that level of unconfined compressive strength would require use of the more protective sloping angles associated with Type B soil.

<sup>&</sup>lt;sup>7</sup>The remainder of the Secretary's prima facie case was established and is not in issue. Broshear Contractors, 16 BNA OSHC at 2096 n.4, 1994 CCH OSHD at pp. 42,365-66 n.4 ("Secretary must establish applicability of cited standard, existence of violative condition, employee exposure thereto, and employer knowledge thereof").

result from the accident." Consolidated Freightways Corp., 15 BNA OSHC 1317, 1324, 1991-93 CCH OSHD ¶ 29,500, p. 39,813 (No. 86-351, 1991). If a cave-in occurred in an 8-foot deep trench, it is clear that there is a substantial probability that the likely result would be death or serious physical harm. Trumid Construction Co. Inc., 14 BNA OSHC 1784, 1789, 1987-90 CCH OSHD ¶ 29,078, p. 38,859 (No. 86-1139, 1990). Accordingly, the violation of § 1926.652(a)(1) is properly classified as serious.

The penalty amount originally sought by the Secretary for this item was \$3000, and the judge assessed a penalty of \$1000. Although the appropriateness of the penalty was directed for review, the parties have not discussed it in their briefs. We find no reason to disturb the judge's penalty assessment.

# II. COMPETENT PERSON INSPECTION--29 C.F.R. § 1926.651(k)(1)<sup>8</sup>

The inspection requirement of 29 C.F.R. § 1926.651(k)(1) provides that a competent person must inspect any excavation for evidence of hazardous conditions prior to employee exposure. A "competent person" is "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." 29 C.F.R. § 1926.650(b).

Nick DiGioia and his two supervisory employees, Ed Sutherland and Joseph Mosko, collectively assumed responsibility for inspecting the trench for hazardous conditions. Although all three men had at least some knowledge of the requirements of the new

<sup>&</sup>lt;sup>8</sup>That standard provides:

<sup>§ 1926.651</sup> General requirements.

<sup>(</sup>k) Inspections. (1) Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

excavation standards, Nick DiGioia admitted finding them confusing. Mosko and Sutherland visually inspected the excavation prior to employee exposure each day and observed no moisture, cracks or layers in the soil, or water in the trench from the previous days' rain. Nick DiGioia manually tested the soil after work had commenced on two of the three workdays by sticking his thumb into a piece of excavated soil. On the first day, Nick DiGioia performed this test one time and concluded that the ground was very hard. On the other day, he picked up a piece of dirt, stuck his finger into it, and noted that the dirt remained the same.

These inspections were insufficient to identify the recognizable hazard that resulted from Respondent's deficient sloping and benching of the trench. Mosko and Sutherland visually inspected the trench walls and observed their condition, but neither ever manually inspected the soil, a necessary pre-requisite to its proper classification and sloping under Appendix A(c)(2) of Subpart P. The only manual tests ever performed on the trench soil were those of Nick DiGioia, which occurred on only two of the three workdays, and only after work Moreover, DiGioia's examination of the soil was, at best, superficial. commenced. Therefore, we find that the trench inspections conducted by Respondent failed to conform to the requirements of the standard. We also find that the inspectors were not "competent person[s]" because they were not "capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees." See Ed Taylor Construction Co., 15 BNA OSHC 1711, 1718, 1991-93 CCH OSHD ¶ 29,764, pp. 40,481-82 (No. 88-2463, 1992) (inspectors' ignorance of hazard and applicable OSHA standards demonstrates their lack of competence); E.L. Davis Contracting Co., 16 BNA OSHC 2046, 2050-51, 1994 CCH OSHD ¶ 30,580, p. 42,341 (No. 92-35, 1994). Accordingly, we affirm the violation of  $\S 1926.651(k)(1)$ .

<sup>&</sup>lt;sup>9</sup>We note that although the soil classification scheme under § 1926.652(b)(2) prescribes manual soil testing (Subpt. P, App. A(c)(2)), the inspection requirement of § 1926.651(k)(1) is not specific as to the manner in which the inspection is to be conducted. Therefore, we rely here on DiGioia's inadequate manual soil classification tests only to the extent that such tests would have been necessary to properly inspect the trench and identify the cave-in hazard that resulted from Respondent's deficient sloping and benching.

We conclude that the violation is serious. As we stated above, if a cave-in occurred in a trench of this depth, it is clear that there is a substantial probability that the likely result would be death or serious physical harm. The failure to inspect presents the same risk. See J.A. Jones Construction Co., 15 BNA OSHC 2201, 2208, 1991-93 CCH OSHD ¶ 29,964, pp. 41,027-28 (No. 87-2059, 1993)(citing R & R Builders, 15 BNA OSHC 1383, 1393-94, 1991 CCH OSHD ¶29,531, p. 39,866 (No. 88-282, 1991)(violation for deficient fall safety program serious where fall hazard is from height sufficient to cause serious injury)).

The penalty amount originally sought by the Secretary for this item was \$3000, and the judge assessed a \$500 penalty. As with the trench protection violation, we find no reason to disturb the judge's penalty assessment.

#### III. ORDER

Accordingly, we affirm the citation for serious violations of § 1926.652(a)(1) and § 1926.651(k)(1), and affirm the penalty assessment of \$1000 and \$500, respectively.

Stuart E. Weisberg
Chairman

Edwin G. Foulke, Jr.

Commissioner

Dated: April 18, 1995 Commissioner



# UNITED STATES OF AMERICA OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

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SECRETARY OF LABOR,

Complainant,

v.

Docket No. 92-3024

DIGIOIA BROTHERS EXCAVATING, INC.,

Respondent.

## **NOTICE OF COMMISSION DECISION**

The attached decision by the Occupational Safety and Health Review Commission was issued on April 18, 1995. ANY PERSON ADVERSELY AFFECTED OR AGGRIEVED WHO WISHES TO OBTAIN REVIEW OF THIS DECISION MUST FILE A NOTICE OF APPEAL WITH THE APPROPRIATE FEDERAL COURT OF APPEALS WITHIN 60 DAYS OF THE DATE OF THIS DECISION. See Section 11 of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 660.

FOR THE COMMISSION

April 18, 1995

Date

Ray H. Darling, Jr.

**Executive Secretary** 

#### NOTICE IS GIVEN TO THE FOLLOWING:

Daniel J. Mick, Esq. Counsel for Regional Trial Litigation Office of the Solicitor, U.S. DOL Room S4004 200 Constitution Ave., N.W. Washington, D.C. 20210

Benjamin T. Chinni Associate Regional Solicitor Office of the Solicitor, U.S. DOL Federal Office Building, Room 881 1240 East Ninth Street Cleveland, OH 44199

F. Benjamin Riek, III Roetzel and Andress 75 East Market Street Akron, OH 44308

Nancy J. Spies Administrative Law Judge Occupational Safety and Health Review Commission Room 240 1365 Peachtree Street, N.E. Atlanta, GA 30309-3119



# UNITED STATES OF AMERICA OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

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SECRETARY OF LABOR Complainant,

V.

DIGIOIA BROTHERS EXCAVATING INC. Respondent.

OSHRC DOCKET NO. 92-3024

#### NOTICE OF DOCKETING OF ADMINISTRATIVE LAW JUDGE'S DECISION

The Administrative Law Judge's Report in the above referenced case was docketed with the Commission on January 3, 1994. The decision of the Judge will become a final order of the Commission on February 2, 1994 unless a Commission member directs review of the decision on or before that date. ANY PARTY DESIRING REVIEW OF THE JUDGE'S DECISION BY THE COMMISSION MUST FILE A PETITION FOR DISCRETIONARY REVIEW. Any such petition should be received by the Executive Secretary on or before January 24, 1994 in order to permit sufficient time for its review. See Commission Rule 91, 29 C.F.R. 2200.91.

All further pleadings or communications regarding this case shall be addressed to:

Executive Secretary
Occupational Safety and Health
Review Commission
1120 20th St. N.W., Suite 980
Washington, D.C. 20036-3419

Petitioning parties shall also mail a copy to:

Daniel J. Mick, Esq. Counsel for Regional Trial Litigation Office of the Solicitor, U.S. DOL Room S4004 200 Constitution Avenue, N.W. Washington, D.C. 20210

If a Direction for Review is issued by the Commission, then the Counsel for Regional Trial Litigation will represent the Department of Labor. Any party having questions about review rights may contact the Commission's Executive Secretary or call (202) 606-5400.

FOR THE COMMISSION

Date: January 3, 1994

Key H. Darling Gel SKA Ray H. Darling, Jr.

Executive Secretary

DOCKET NO. 92-3024

## NOTICE IS GIVEN TO THE FOLLOWING:

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SECRETARY OF LABOR,

Complainant,

OSHRC Docket No. 92-3024

DIGIOIA BROTHERS EXCAVATING, INC.,

Respondent.

APPEARANCES:

Bruce C. Heslop, Esquire
Office of the Solicitor
U. S. Department of Labor
Atlanta, Georgia
For Complainant

F. Benjamin Riek, III, Esquire Cleveland, Ohio For Respondent

Before: Administrative Law Judge Nancy J. Spies

#### **DECISION AND ORDER**

On September 9, 1992, the Secretary issued a citation to DiGioia Brothers Excavating, Inc. (DiGioia), alleging violations of the Occupational Safety and Health Act of 1970 (Act). The citation resulted from a July 30, 1992, excavation inspection by the Occupational Safety and Health Administration (OSHA) Compliance Officers James Denton and Anthony Incristi. Violations of §1926.651(k)(1) and §1926.652(a)(1) were charged for failure to have

a competent person conduct daily inspections and for failure to use an adequate protective system in the excavation. DiGioia denies that it violated the cited standards.

#### BACKGROUND

DiGioia is a construction contractor specializing in trenching and dirt excavation (Tr. 458). At the time of the inspection it was laying water and sewer lines from the street to a newly constructed house in Brecksville, Ohio (Tr. 379). There is no dispute that the excavations were dug at a location well known as a place where fill material was dumped and spread over a period of more than a decade (Tr. 352, 463).

At the time of the inspection, two trenches were opened. Only the longer of the trenches is in issue. That trench was intended to run 110 feet to the house, but only 25 feet was open at the time of the inspection (Exh. C-5; Tr. 379). The trench ran north to south and was dug perpendicular to the road. The trench held two 6-inch sewer pipes and a smaller copper water pipe. Laborer Bill Keiper had laid a portion of the pipe in this trench at the time of the inspection. Denton considered the location where the pipes ended as a point of exposure, and he took measurements at that point with an angle indicator and engineering rod and recorded them (Tr. 33-35, 38, 59). The west trench wall had a 1-foot 8-inch bench and then sloped up an additional 7 feet at a 60-degree angle. The east trench wall had a vertical bench of 5 feet 1 inch and then sloped up 3 feet 7 inches at a 50-degree angle (Exh. C-4; Tr. 56, 60). The site was muddy from previous heavy rains, but Denton noted that water was not seeping through the trench sidewalls. The trench walls had some small pitting and cracking (Tr. 95).

The maximum slope permissible for Type B soil is 45 degrees. If Type B soil, this excavation exceeded the maximum angle by at least five and 15 degrees on alternate walls. If the soil was properly classified by DiGioia as Type A, the sloped portion of the trench complied with the standard.<sup>1</sup> Regardless of the soil classification, however, and contrary to

<sup>&</sup>lt;sup>1</sup> The Secretary's brief asserts, without explanation, that the slope of the trench wall was 67° (Secretary's Brief, pg. 14). Respondent's brief contends, based on estimates, that the trench wall was 52° measured from the base of the trench (Respondent's Brief, pg. 26). The evidence supports a finding that the slope of the trench measured from its base to the top was not more than 63° and, thus, would comply with required sloping for Type A soil.

DiGioia's argument, the maximum height for a vertical wall in a benching system is 4 feet (Tr. 108; App. B, Figure B-1.1.2, "Simple Bench"). DiGioia's 5-foot 1-inch vertical wall exceeded the maximum height for a vertical bench even for Type A soil (Tr. 72).

#### Classification of the Soil

The parties primarily dispute the proper classification of the soil. Specifically, the question is whether the "backfilled" soil which existed at the site must be considered "previously disturbed," as defined by the standard, or whether, through compaction or by natural process, it sufficiently lost the characteristics of "previously disturbed" soil so that it could be classified as Type A soil.

DiGioia argues that although soil might have been previously disturbed for some purposes, it need not be considered such for purposes of the standard. In DiGioia's opinion, if the soil were previously disturbed, it need not necessarily be classified as Type B.

Nick DiGioia explained that he knew the worksite was extensively layered with fill material. He testified (Tr. 463):

- Q. Were you aware if there was any--that there might be fill on this particular land site?
- A. Yes, I was.
- Q. How did you become aware of that?
- A. The site has been filled for the last 20 years that I know of. They have been putting fill material in there for a long time.
- Q. Did that cause you any concern?
- A. Yes, it did.
- Q. Why is that?
- A. Well, because fill ground is disturbed ground so that caused both me and Ed concern.

Superintendent Ed Sutherland assumed that fill need not be considered Type B soil if, for example, the fill soil was "nice and tight" (Tr. 348). Likewise, foreman Joe Mosko, who was aware that the area had been backfilled, concluded that this was not determinative of the soil classification. He stated (Tr. 400):

A. Well, the first day we got there, me and Ed had talked about that this might be a fill area.

\* \* \*

- Q. Have you had problems with fill, working fill areas?
- A. Sometimes, yes.
- Q. What has developed on other sites?
- A. Basically, it turns into like a Class-B or A--depending on the compaction.

The Secretary asserts that the standard requires that backfilled material must always be classified as Type B and, further, that Denton's soil tests established that the trench soil was Type B at the location he tested.

#### **OSHA'S Soil Classification**

At Denton's request, Mosko, who was also the backhoe operator, removed a soil sample from along the trench wall. The sample separated into large soil clumps as it was removed. Denton secured ten penetrometer readings from separate portions of the sample. The majority of those results ranged between .5 to 1 ton per square foot (tsf) unconfined compression strength. Two or three readings tested close to 1.5 (Tr. 64). Denton also ran a thumb penetration test and rolled a part of the soil in his hand (Tr. 66). The soil was easily penetrated and was cohesive and "clay-type" (Tr. 97, 127). DiGioia foreman Joseph Mosko advised Denton that they were in "a fill" area, which Denton took to mean an area with previously disturbed soil (Tr. 66). Based on his tests and upon Mosko's identification

of the soil as "fill," Denton classified the soil as Type B.<sup>2</sup> The Secretary performed no further soil analysis.

Months before the inspection, an independent consultant for the city, Chris Lopez, was concerned with the stability of the soil. It was obvious from his observation of the soil around the house footers that the soil was fill material which contained asphalt, brick and concrete fragments, and that there was no distinct stratification (Tr. 154). The footers had already been dug to the standard depth of 6 feet, but Lopez required them to be dug deeper until they reached virgin soil. He considered the soil as previously disturbed since it "came from someplace else and was placed at the site" (Tr. 161, 165).

#### DiGioia's Soil Classification

On July 28, 1992, DiGioia began to lay pipes from the street to the house. That first day foreman Joe Mosko dug a receiving hole. "Because I saw that [the soil] was coming out in clumps, [t]here were no layers in it." Mosko and superintendent Ed Sutherland both considered the soil to be Type A (Tr. 384). Later that morning Nick DiGioia, owner, arrived at the site. He checked the soil by picking it up and shaking it in his hand. He stated, in his opinion, the soil was Type A.

On July 29, 1992, at 8:00 a.m. Mosko began excavating the trench and had to "bang the bucket" to dislodge clumps of soil (Tr. 391). Since in Mosko's opinion this soil 'behaved" like Type A soil, the fact that it was backfilled was of no overriding consequence to him (Tr. 401). When superintendent Ed Sutherland came to the jobsite, he made a similar visual observation and the men discussed the fact that the soil was Type A. For at least thirteen years Sutherland had observed fill being brought onto the lot (Tr. 344, 348, 352). Sutherland also knew that because it was fill, there would be no guarantee that the soil would be homogeneous (332). Later that morning, according to Mosko, Nick DiGioia

<sup>&</sup>lt;sup>2</sup> Type A soil is defined as "cohesive soils with an unconfined compressive strength of 1.5 tons per square foot (tsf)(144kPa) or greater" but not if, among other things "[t]he soil has been previously disturbed." Similarly, Type B soil is defined as "[c]ohesive soil with an unconfined compressive strength greater than 0.5 tsf (48kPa) but less than 1.5 tsf" or "[p]reviously disturbed soils except those which would otherwise be classed as Type C soil." (Subpart P, App. A) (Emphasis added)

again checked the worksite, picked up soil, did a thumb penetration test, and manually tested the soil.<sup>3</sup> He again classified the soil as Type A.

On July 30, 1992, when Sutherland arrived at the worksite, he noted that the rain had not penetrated the soil. He advised Mosko to continue sloping the trench in conformity with Type A soil (Tr. 311).

Six months after the inspection, DiGioia hired Solar Testing Laboratories, Inc. (Solar), to conduct an extensive soil analysis of the Royalton Road site. Solar performed various soil analyses which were described in detail at the hearing. Solar concluded:

[O]ur visual classification and laboratory test results indicated that the soil encountered at the site is equivalent to soil Type B as far as description, however, the unconfined compressive strength and pocket penetrometer results meet the soil Type A requirements. (Exh. C-9, pg. 2) (Emphasis added)

This statement of Solar's succinctly summarizes the case.

#### DISCUSSION

The accuracy of Solar's unconfined compressive strength tests is accepted for the areas tested. Solar's tests were more exacting and reliable than those performed by the Secretary.

The Secretary argues that Solar took samples from a different location along the trench than had Denton. Neither sample was taken at the precise "point of exposure." Two of Solar's tests were taken adjacent to the house, and the third was taken within 2 feet of the edge of the house (Exh. C-9, pg. 4). Denton's sample was taken from a location which was not as far south as Solar's samples, but the distance between the two samples is estimated to be no more than 20 feet.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> Both Mosko and Nick DiGioia recall that DiGioia manually tested the soil on two of the three days. DiGioia recalls that he picked up the soil on the first and third days (Tr. 464). Mosko believes that he did so on the first and second days (Tr. 450).

<sup>&</sup>lt;sup>4</sup> The trench from the street to the house measured 110 feet. Portions of the trench were opened and filled as the days progressed. By the second day Mosko laid 30 to 40 feet of pipe. Before the inspection on the third (continued...)

Over the previous seven years, the homeowner had brought backfill to the excavation site. The material has consisted of asphalt and debris, as well as soil (Exh. C-11). The homeowner spread the fill material with his front-end loader. By the time the trench was excavated, the fill extended to a depth beyond 6 feet (Tr. 161). Even though the homeowner distributed the fill, this could not be considered an engineered or controlled fill (one in which each lift was monitored during placement and compacted to a known density) (Tr. 168). Considering how and over what period the lot was backfilled, it is reasonable to assume that the compaction and compressive strengths occurring in one area of this site would not necessarily be found in all areas. Both Denton's and Solar's classifications may be correct since they tested different areas.

The parties raise a larger question. The record established that previously disturbed soils may become compacted. Even the Secretary's expert, Dr. Allan Peck, explained that it is possible for disturbed cohesive soils to re-establish a "molecular interaction" which equals the soil's original strength (Tr. 217). Compaction, according to Peck, is one method by which soil can be restored, but the length of time or degree of compaction necessary to return disturbed soil to the cohesive strength of virgin soil cannot mathematically be determined (Tr. 227, 253).

The new excavation standards were designed, in part, to avoid the uncertainty and subjectiveness of the predecessor standard. Given that objective, it cannot be assumed, as DiGioia argues, that the standard purposely omitted defining "previously disturbed soil" in order to recognize a "long standing" acceptance that soils "can have their strength parameters restored by accepted engineering principles such as compaction" (Brief, pg. 24). The standard is specific, and an employer may not craft an exception to it by implying such a significant caveat.

<sup>&</sup>lt;sup>4</sup>(...continued)

day, Mosko laid another 30 to 40 feet. After the inspection he finished the job by laying an additional 30 to 40 feet (Tr. 403, 406). Denton's soil sample was taken somewhere between the house and a point 60 to 80 feet south of the street. As Mosko noted, "I was cutting that part of the trench when he asked for [the sample]. I didn't go back to where we were working at . . . I was in the piece here in the picture between the house and the end of my pipe. So, I took a chunk, a bucket of dirt out and put it there for him to test" (Tr. 440).

The uncertainties of the compaction process for disturbed soils may have been considered when the standard was written. Since the existence of a standard presumes a hazard when its terms are not met, it is unnecessary to consider possible rationale.

Contrary to DiGioia's argument, an employer may not choose between classifying soil (as Solar would have it) "by description" or "by strength." The previously disturbed soil in which DiGioia excavated must be classified as Type B.

#### Citation No. 1

Item 1: §1926.651(k)(1)

The Secretary charges DiGioia with a serious violation of \$1926.651(k)(1) which provides:

(k) Inspections. (1) Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, ...or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work... (Emphasis added)

According to the definition section of the excavation standards in §1926.650(b):

Competent person means 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.

DiGioia asserts that it had three competent persons at the jobsite: Joe Mosko, foreman and backhoe operator; Ed Sutherland, superintendent; and Nick DiGioia, president. It asserts that these men combined complied with each of the standard's requirements and properly classified the soil as Type A. More than one competent person may be on the jobsite. It is only necessary that a competent person perform and make required judgments before the work is begun.

<sup>&</sup>lt;sup>5</sup> The standard would permit DiGioia to secure the services of a registered professional engineer to approve an alternate sloping design, but that should have been done before employees entered the trench.

Subpart P, Appendix A(c)(1), requires that the competent person classify the soil as either stable rock, Type A, Type B, or Type C soil. Appendix A(c)(2) requires that the competent person make the classification "based on at least one visual and at least one manual analysis." Mosko and Sutherland each knew that a manual test was required when classifying the soil, but neither performed that test on any of the three days. Sutherland and, in his absence, Mosko were in charge of the site, and Sutherland gave directions to "open [the trench] back up" (Tr. 308). DiGioia did test the soil manually on two of the three days, but only after work was under way.

Although knowledgeable about the excavation standards in a general way, DiGioia and his employees erroneously believed that there was little difference between the old and new excavation standards (Tr. 477). After the new standards were enacted, DiGioia made an effort to inform employees of the new standard by holding a meeting lasting approximately one hour (Tr. 429). The standard is somewhat technical, and one can sympathize with the sentiment expressed by Nick DiGioia that "there is a part under there under Type-A that just completely gets ridiculous and you can't even follow it." (Tr. 486). Trenching comprises a substantial portion of DiGioia's business. Although technical, compliance with each portion of the standard is required. Failure to have a competent person conduct required tests and to follow the standard's classification of previously disturbed soil classified as Type B establishes the violation, and it is affirmed.

### Item 2: §1926.652(a)(1)

The Secretary asserts that DiGioia violated §1926.652(a)(1) when it failed to slope the excavation for Type B soil. DiGioia contends that the trench was properly sloped for Type A soil. As discussed, the soil at this excavation site was Type B. The standard requires:

(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:

(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 excavation was over 8 feet deep. The slope was greater than the maximum allowed for Type B soil. Further, the bench on the east trench wall was 5 feet 1 inch and exceeded the 4-foot maximum bench height. The standard does not anticipate that an individual who is not a registered professional engineer can make decisions which, in effect, override the plain requirements of the standard. The violation is affirmed.

#### CLASSIFICATION AND PENALTY

DiGioia contends that if violations are found, given the stability of the soil, they are de minimis. A finding that a violation is de minimis must be assessed "in the particular factual circumstances at that employer's workplace." El Paso Crane & Rigging Co., Inc., 16 BNA OSHC 1419, 1993 CCH OSHD ¶ 30,231 (No. 90-1106, 1993). DiGioia relies on the Commission's decisions in Shane, Inc., 5 BNA OSHC 1217, 1219, 1977-78 CCH OSHD ¶ 21,694 (No. 13136, 1977), and Concrete Construction Co., 15 BNA OSHC 1614, 1622, 1992 CCH OSHD ¶ 29,219 (No. 89-2019, 1992). In the particular facts of those decisions, decided under the old excavation standards, the Commission held that compacted soil had sufficient stability to preclude collapse. The same is not shown by this record. The lot at Royalton Road was backfilled over a prolonged period and was not a homogenous fill. Portions of the lot were compacted to the level found by Solar, but there is no guarantee that such stability existed throughout the trenched area. Denton's tests indicated Type B soil may have been present. Failure to conduct manual tests of the soil and failure to classify the soil in accordance with the standards could result, as it did here, in incorrectly sloping the trench. De minimis violations are "trifling in that [the violations] never really compromised any protection meant for employees under the terms of the standard." El Paso Crane & Rigging, 16 BNA at 1429, 1993 CCH at p. 41,624. In the present case, the safety of DiGioia's employees was compromised. Failure to have a competent person inspect a trench and failure to implement an adequate protective system in a trench are not "trifling" violations.

Each of the violations could result in collapse of an 8-foot trench, which could cause serious injury or death. The violations are properly classified as serious.

The Commission is the final arbiter of penalties in all contested cases. Secretary v. OSHRC and Interstate Glass Co., 487 F.2d 438 (8th Cir 1973). In determining the appropriate penalty, statutory factors were considered. At the time of the inspection, DiGioia had fifty to sixty employees (Tr. 338). The Secretary failed to document any history of previous violations (Tr. 130-131). DiGioia had a safety program and cooperated with the investigation. It attempted to advise its employees of the requirements of the excavation standard. DiGioia analyzed the soil believing that backfilled material could be Type A if it met certain requirements. DiGioia was incorrect, but it had not ignored the standard.

The gravity of the offense is the principal factor to be considered in assessing a penalty, and the likelihood of an accident is important in determining gravity. See, e.g., Bethlehem Steel Corp. v. OSHRC, 607 F.2d 1069 (3d Cir. 1979). Considerations of gravity include the fact that only one employee was exposed to the violations for a few hours over a two-day period and that the condition of the soil was relatively stable. A penalty of \$500 is appropriate for the violation of \$1926.651(k)(1); a penalty of \$1,000 is appropriate for the violation of \$1926.652(a)(1).

# FINDINGS OF FACT AND CONCLUSIONS OF LAW

The foregoing decision constitutes the findings of fact and conclusions of law in accordance with Federal Rule of Civil Procedure 52(a).

## **ORDER**

Based on the foregoing decision, it is ORDERED:

(1) That the violation of \$1926.651(k)(1) is affirmed as serious, and a penalty in the amount of \$500 is assessed.

(2) That the violation of \$1926.652(a)(1) is affirmed as serious, and a penalty in the amount of \$1,000 is assessed.

James J. Com

NANCY J. SPIES

Judge

Date: December 23, 1993