

**STATE OF ALASKA  
DEPARTMENT OF LABOR**

**OCCUPATIONAL SAFETY AND HEALTH REVIEW BOARD  
P.O. BOX 21149  
JUNEAU, AK 99802**

<b>STATE OF ALASKA, DEPARTMENT</b>	)	
<b>OF LABOR, DIVISION OF LABOR</b>	)	
<b>STANDARDS AND SAFETY,</b>	)	
<b>OCCUPATIONAL SAFETY AND</b>	)	
<b>HEALTH SECTION,</b>	)	
	)	
Complainant,	)	Docket No. 97-2101
	)	Inspection No. 105861066
v.	)	
	)	
<b>McLIN CONTRACTORS, INC.,</b>	)	
	)	
Contestant.	)	
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**DECISION AND ORDER**

McLin Contractors, Inc. (McLin) contests a citation issued by the State of Alaska, Department of Labor (Department) following an occupational safety and health inspection of McLin's worksite in Anchorage on June 12, 1997.

The Department's citation alleges two violations of occupational safety and health (OSHA) standards. Item 1 alleges a violation of 29 CFR 1926.652(a)(1) by failing to protect employees in excavations from cave-ins by an adequate protective system designed in accordance with OSHA standards. Item 2 alleges a violation of 29 CFR 1926.651(c)(2) by failing to provide a safe means of egress from trench excavations. Each of the alleged violations was classified as "serious" with a proposed penalty of \$250.

Upon McLin's contest of the citation, a hearing was held before the Board in Anchorage on February 19, 1998. The Department was represented by Assistant Attorney General

Robert Royce. McLin was represented by its president, James McLin. Both parties presented witness testimony, documentary evidence and oral argument. After considering the evidence and arguments of the parties, the Board makes the following findings of fact, conclusions of law, and order in this matter.

### **FINDINGS OF FACT**

1. On June 12, 1997, Department compliance officer John Stallone conducted an occupational safety and health inspection of a construction site under the control of McLin Contractors, Inc., near the intersection of Lake Otis Parkway and Pago Pago Avenue in Anchorage, Alaska.

2. Upon his arrival at the site, Stallone observed an open trench which had been excavated by McLin for the purpose of laying a water pipe. Stallone saw three persons in the trench, who were later identified as McLin's president James McLin; one of McLin's employees; and the owner of the property. There was a backhoe and other pieces of heavy equipment at the site.

3. Stallone took measurements of the trench, but did not go inside the trench for safety reasons. He measured the trench as 27 feet long, 17 feet wide at the top, and 8-10 feet deep. Using an inclinometer, he measured the sides of the trench as having slopes of 55 and 65 degrees while the ends of the trench had slopes of 45 degrees. Stallone videotaped and photographed the excavation site. The videotape and photographs show the bottom of the trench to be about 5-6 feet wide. DOL Exhs. 1 and 2.

4. According to Stallone, the trench was not sloped, benched, shored or otherwise protected from cave-ins under the OSHA excavation standard in 29 CFR 1926.652.

5. Stallone described the soil in the trench as "granular," consisting of sand, silt, small rocks, and some clay at the bottom. The soil appeared to have been previously disturbed and did not appear to have much cohesion. He further testified that the trench was subject to vibration from traffic on Lake Otis Parkway, a major roadway immediately adjacent to the excavation site. Stallone also noticed an accumulation of standing water at the bottom of the trench, which is shown in the videotape and the photographs. DOL Exhs. 1 and 2.

6. When Stallone asked James McLin if a soil analysis or engineering report had been done for the excavation, McLin replied in the negative. Although both Stallone and McLin have field experience with excavations, neither is qualified as a soils expert or engineer.

7. The Department offered a federal OSHA interpretation letter stating that if an employer elects to use sloping as the method of cave-in protection, the soil at an excavation site must be assumed to be Type C, the least stable soil classification, unless the employer provides a professional soil analysis or engineering report showing otherwise. DOL Exh. 3.

8. Stallone testified that it would have been feasible for McLin to provide cave-in protection by one of several methods: 1) sloping or benching the sides of the trench in accordance with OSHA standards; 2) placing a "caisson" or cross-brace across the width of the trench; or (3) using a shoring or support system.

9. During his inspection, Stallone asked the persons in the trench to come out of the trench. As shown in the videotape, they did so by climbing out on the 45-degree dirt slope at one end of the trench. At least one person had to use his hands to climb out. As they came out of the trench, Stallone observed some sloughing of the sides of the trench. DOL Exh. 1.

10. There was no stairway or exit ladder in the trench. There was a ladder laying horizontally on the ground outside the trench which was too short to be used as an exit ladder. At the compliance officer's request, McLin produced a longer extension ladder which was placed in the trench for safe egress.

11. James McLin testified that he has 22 years of experience with trench excavations. In his opinion, the trench was safe. He stated that the trench had been excavated the day before the inspection and that he and another employee had been in the trench for relatively short periods of time. The ladder that was laying on the ground had been used to get in and out of the trench earlier, but was removed prior to the inspection. McLin believed there was safe egress from the trench via the dirt slope at one end of the excavation.

12. McLin testified that the trench had been previously excavated, but only down to

the electrical conduit wires about 3-4 feet below the top of the trench. He stated that below this level, the soil was hard and compacted. According to McLin, the "granular" soil observed by Stallone was simply gravel which had been brought in to lay a bed for the water pipe. McLin admitted that he had not obtained a professional soil analysis or engineering report for the excavation, nor had he measured the slopes of the trench to determine compliance with OSHA excavation requirements.<sup>1</sup>

13. John Logan, McLin's working foreman at the site, expressed his opinion that the soil in the trench was hard-packed and stable material. He testified that he and another employee acted as "ditch watchers" on either side of the trench and watched for any signs of sloughing. Logan also indicated that after the inspection, a rental trench box was delivered to the site.

14. McLin offered the testimony of Mike Powell, who is self-employed and has done excavation work for McLin on and off since 1989. Powell, who was present at the worksite during the inspection, believed the trench was safe and indicated he did not see any sloughing of the sides of the trench.

15. Compliance officer Stallone classified the alleged violations as "serious" based on his conclusion that the violations created a greater rather than lesser probability of an accident, and that any resulting injury was likely to involve serious bodily harm or death in the event of a trench cave-in or collapse.

16. Using the Department's penalty calculation guidelines, Stallone determined the initial proposed penalty for each alleged violation was \$5,000. McLin was awarded the maximum 95% penalty reduction based on company size, good faith, and prior history, resulting in a final proposed penalty of \$250 for each alleged violation.

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<sup>1</sup> McLin offered a handwritten statement concerning the trench from a right-of-way/permit enforcement officer of the Municipality of Anchorage who was not present to testify at the hearing. McLin Exh. 1. Upon the Department's objection, this evidence was excluded as hearsay. The statement does not qualify under any of the recognized exceptions to the hearsay rule, nor did the Department have a fair opportunity to cross-examine the author of the statement.

## CONCLUSIONS OF LAW

### **Item 1**

29 CFR 1926.652(a)(1) provides:

**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.

There is no dispute that the trench excavated by McLin was substantially more than five feet deep. The only other exception from the requirement to provide an adequate protective system against cave-ins is for excavations made entirely in stable rock. Under the OSHA excavation standards, soils are classified in decreasing order of stability as follows: Stable Rock, Type A, Type B and Type C. Soil classifications are determined based on an analysis of the properties and the performance characteristics of the deposits and the environmental conditions of exposure. Appendix A to Subpart P, 29 CFR 1926 (1997).<sup>2</sup>

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<sup>2</sup> Appendix A to Subpart P of 29 CFR 1926 defines the soil classifications as follows:

"Stable rock" means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

"Type A" means cohesive soils with an unconfined compressive strength of 1.5 ton per square foot (tsf) 144kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A. However, no soil is Type A if:

- (i) The soil is fissured; or
- (ii) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
- (iii) The soil has been previously disturbed; or
- (iv) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or
- (v) The material is subject to other factors that would require it to be classified as a less stable material.

"Type B" means:

There is no evidence that the soil excavated by McLin consisted of "stable rock" as that term is defined in 29 CFR 1926. Therefore, McLin was required to provide an approved method of cave-in protection, such as sloping, benching, shielding or shoring. McLin disagrees with the Department's classification of the soil in the trench as Type C and argues that if the soil were given a higher classification, the trench would be in compliance with OSHA requirements. We are not persuaded by McLin's argument. Under the OSHA excavation standard, if an employer elects to use sloping as the method of protecting against trench cave-ins, the soil must be presumed to be Type C unless the employer provides a professional soil analysis or engineering report establishing a different soil classification which would allow a steeper slope. See 29 CFR 1926.652(b) and DOL Exh. 3. McLin has presented no such evidence here. Therefore, the sides of McLin's trench were required to be sloped at an angle not steeper than 1-1/2:1 (34 degrees from horizontal), which is the maximum allowable slope for Type C soil. See Table B-1 of Appendix A to Subpart P, 29 CFR 1926.

The soil excavated by McLin cannot be considered Type A for several reasons. First,

(...continued)

- (i) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or
- (ii) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
- (iii) Previously disturbed soils except those which would otherwise be classed as Type C soil.
- (iv) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or
- (v) Dry rock that is not stable; or
- (vi) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

"Type C" means:

- (i) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or
- (ii) Granular soils including gravel, sand, and loamy sand; or
- (iii) Submerged soil or soil from which water is freely seeping; or
- (iv) Submerged rock that is not stable, or
- (v) Material in a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or steeper.

the soil was subject to vibration from heavy traffic on Lake Otis Parkway, a major roadway. See "Type A" definition at footnote 2 *supra*, subsection (ii). Second, the soil in the trench had been previously disturbed. *Id.* at subsection (iii). Third, the standing water at the bottom of the trench indicates moisture which could make the sides of the trench less stable. *Id.* at subsection (v).

We need not decide whether the soil in the trench was Type B or Type C because the maximum allowable slope for Type B soil is 45 degrees and the compliance officer's measurements showed that the sides of the trench were sloped at 55 and 65 degrees. Although McLin questions the accuracy of the compliance officer's measurements, McLin did not provide any credible evidence contradicting these measurements and we have no reason to doubt their accuracy.

Accordingly, because McLin did not sufficiently slope the sides of the trench as required by the OSHA excavation standard and did not provide any other approved method of cave-in protection, we conclude that McLin violated 29 CFR 1926.652(a)(1).

Notwithstanding its failure to comply with the cited standard, McLin argues that the trench was safe and did not pose a cave-in hazard. However, the Department is not required to prove the existence of a hazard once it has shown that the applicable standard has been violated. See M. Rothstein, *Occupational Safety and Health Law*, ? 114 at 173-74 (4th ed. 1998). The cited standard presumes a hazard exists once a trench reaches a depth of five feet. The standard does not allow for "field tolerances" or variations from the requirements of the standard. *ICG Electric, Inc.*, 17 (BNA) OSHC 1819, 1820 (1996). An employer is not permitted to substitute his own safety opinion or judgment for the requirements of the OSHA excavation standard.

McLin also fails to convince us that it would have been difficult to comply with the cave-in protection requirements of the excavation standard. Our review of the videotape and photographs taken by the compliance officer persuades us that McLin readily could have used a sloping, benching or shielding system that would have complied with OSHA requirements. While we commend McLin's safety practice of using "ditch watchers" and its prompt compliance by renting a trench box after the inspection, the evidence clearly demonstrates that McLin failed to provide adequate

employee protection from a potential trench cave-in or collapse.

## **Item 2**

29 CFR 1926.651(c)(2) provides:

**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 (1.22m) or more in depth so as to require no more than 25 feet (7.62m) of lateral travel for employees.

It is undisputed that the trench excavated by McLin was more than four feet deep, meaning that a stairway, ladder, ramp or other safe means of egress was required. Upon review of the evidence, particularly the videotape, we conclude that the so-called dirt "ramp" at one end of the trench was not an adequate or safe means of egress. The videotape clearly shows that the persons in the trench could not exit easily on two feet and had to use their hands to climb out. The videotape also shows dirt sloughing from the sides of the trench as these persons climbed out. Although McLin had an extension ladder available at the site, the ladder was not put into use until requested by the compliance officer.

Moreover, the compliance officer's measurements showed the trench to be 27 feet long. McLin offered no specific evidence to contradict this measurement. Because McLin's employees were exposed to lateral travel of more than 25 feet inside the trench, a second safe means of egress was required. Since McLin did not provide even one adequate means of egress from the trench, we conclude that McLin violated 29 CFR 1926.651(c)(2).

## **Classification of Violations and Proposed Penalty**

Alaska Statute 18.60.095(b) provides that an OSHA violation is "serious" if the violation creates in the place of employment a substantial probability of death or serious physical harm. We believe McLin's failure to provide adequate cave-in protection in the trench, combined with the absence of a safe means of egress from the trench, created a substantial probability of serious physical injury or death in the event of a sudden trench collapse. Therefore, we conclude that both violations were properly classified as "serious."

Regarding the proposed penalties, McLin was awarded the maximum reduction of 95% based on company size, good faith, and prior history. McLin

