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STATE OF ALASKA,)
DEPARTMENT OF LABOR,)
Complainant,)
v.)
TAB ELECTRIC, INC.,)
Contestant.)

Docket No. 91-865
Inspection No. Sa-9589-064-90

DECISION AND ORDER

This matter arises from an occupational safety inspection conducted by the State of Alaska, Department of Labor (Department) on December 13, 1990, at a worksite located near the intersection of Huffman Road and the New Seward Highway in Anchorage, Alaska. As a result of the inspection, the Department issued a citation to TAB Electric, Inc. (TAB) alleging five separate violations of Alaska occupational safety codes.

Item 1 alleges a violation of Construction Code 05.160(b)(9)(A) for failure to store excavated material at least two feet or more from the edge of a trench. Item 2 alleges a violation of Construction Code 06.160(b)(3) for failure to adequately protect employees working in a trench approximately five

feet deep. Item 3 alleges a violation of Construction Code 05.150(b)(2)(D) for operating a John Deere caterpillar with a non-working back-up alarm. Item 4 alleges a violation of General Safety Code 05.0501(c) for not having a first aid kit inside a pickup truck used to transport employees. Item 5 alleges a violation of Construction Code 05.150(b)(2)(R) for failure to equip a crew transport vehicle with a fire extinguisher. All five alleged violations were cited as "other than serious" and no monetary penalty was assessed.

Upon TAB's notice of contest of the citation, a hearing was held before the Board in Anchorage on October 15, 1991. The Department was represented by Assistant Attorney General Toby Steinberger. TAB was represented by James Sarafin, Esq. Both parties presented witness testimony, documentary evidence and arguments. After review and consideration of 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 December 13, 1990, Department compliance officer Danny Sanchez was driving back to his office from an inspection on Huffman Road when he observed an excavated trench near the intersection of Huffman Road and the New Seward Highway in Anchorage.

2. Under OSHA's national emphasis program for trenches, Department compliance officers are required to stop and inspect all trenches in plain view.

3. The trench observed by Sanchez had been excavated by TAB Electric, Inc. under contract for Chugach Electric Company.

4. After introducing himself to the TAB foreman, Sanchez proceeded to inspect the excavated trench. He used a tape measure to measure the depth of the trench in two or three places. He estimated the trench depth at approximately five feet. He also took photographs of the trench and the surrounding area. See Exhibits 1-8.

5. Sanchez examined the soil in the trench and determined that it would be classified as "Type C" soil under the soil classification guidelines in the Construction Code. He observed that the sides of the trench were nearly vertical and had not been sloped to any significant degree. See Exhibits 1-3 and 6.

6. Sanchez determined from interviews at the site that TAB's employees had been working inside the trench. Sanchez also personally observed one of TAB's employees in the trench.

7. Sanchez alerted TAB's foreman about the potential dangers of a trench cave-in. TAB immediately brought in a backhoe to slope the sides of the trench to the angle required by the Construction Code.

8. Sanchez has received OSHA training on excavations and has inspected trenches on and off since 1978. He did not have any specialized measuring equipment with him during the inspection

and relied only on a tape measure and his own visual observations to determine the depth of the trench and other measurements. TAB's foreman at the site did not dispute Sanchez' estimate that the trench was approximately five feet deep.

9. TAB's owner, Thomas Brown, arrived at the worksite while the inspection was in progress. Brown has field experience as a lineman and is familiar with soil conditions and excavations. In September 1990, Brown completed a training course in excavation, trenching and soil mechanics. See Exhibit C. Brown stated that as a result of the training course, he is qualified as a "competent person" to evaluate excavation hazards under the Department's trenching regulations.

10. Brown stated that the backhoe operator who excavated the trench had been instructed to excavate only to a maximum depth of four feet but had failed to follow those instructions. Brown offered no evidence to contradict the compliance officer's measurement that the trench was approximately five feet deep.

11. Brown testified that the sides of the excavation consisted largely of frozen soil and that the soil was of uniform quality and consistency from the top to the bottom of the trench. He poked a digging bar on the side wall of the trench and found that the ground was frozen down to approximately 2-1/2 feet. See Exhibit 1.

12. The Department offered the expert testimony of Howard Weston, a geotechnical engineer for Alaska Testlab. Weston reviewed a 1977 report on the soil in the area of the trench and

concluded with Sanchez that the soil was Type C soil. See Exhibit A. Furthermore, relying on weather records and soil parameters for the area, Weston estimated the depth of frozen ground in the trench at approximately 1-2 feet. See Exhibits 9-13. In Weston's opinion, despite the existence of frozen ground in the top part of the trench, there was still a significant potential for a trench collapse or cave-in due to the instability of the unfrozen ground below. Because of this risk, he believed it was necessary to slope or shore the side walls of the trench to prevent the possibility of a collapse.

13. TAB offered the expert testimony of Michael Hartley, a geotechnical engineer with Peratrovich, Nottingham and Drage. At TAB's request, Hartley examined the soil at the trench site and agreed that it was Type C soil. In addition, using soil data, weather records and other relevant information, he computed the depth of frozen ground at the time of the inspection at approximately 1-1/2 to 3 feet. Relying on an assumption that the trench was five feet deep with the top 2-1/2 feet frozen, Hartley concluded that even if the soil under the frozen area were to fail there would be no need for sloping or shoring the sides of the trench unless the trench was more than four feet deep below the frozen section (i.e., more than 6-1/2 feet deep overall). Since there was only approximately 2-1/2 feet of unfrozen ground below the frozen portion, it was Hartley's opinion that there was virtually no danger of a trench collapse. See Exhibit E.

14. As part of his inspection, Sanchez also determined that a spoil pile of excavated material had been placed less than two feet from the top edge of the trench. The spoil piles were approximately 2 to 2-1/2 feet high and consisted of granular soil mixed with rocks. See Exhibits 4, 5 and 6.

15. Sanchez also noticed a TAB employee backing up a John Deere caterpillar. There was no one assisting the operator during the backing-up nor did he hear any back-up warning alarm. Upon investigation, Sanchez determined that the caterpillar was equipped with a back-up warning alarm but that the alarm was not working. Thomas Brown stated that he was unaware the back-up alarm was not working properly and that the problem had not been mentioned at the most recent safety meeting. See Exhibit D.

16. Sanchez further determined that one of TAB's utility trucks (Truck #106) used to transport employees was not equipped with a first aid kit or a fire extinguisher. TAB responded that Truck #106 was not meant for regular service and that all the other company vehicles were supplied with the required first aid kit and fire extinguisher. Upon learning of the alleged violations, TAB promptly supplied the truck with a first aid kit and a fire extinguisher.

17. Sanchez classified the alleged violations as "other than serious" because in the event of an accident resulting from any of the violations, he did not believe there was a substantial probability of death or serious bodily harm from any of the hazards created.

CONCLUSIONS OF LAW

Item 1

Construction Code 05.160(b)(9)(A) provided:

In excavations which employees may be required to enter, excavated or other material shall be effectively stored and retained at least two feet or more from the edge of the excavation.¹

The photographs identified as Exhibits 4, 5 and 6 were taken by the compliance officer at the time of the inspection and clearly demonstrate the presence of large spoil piles less than two feet from the top edge of the trench. TAB acknowledges this but maintains there were no employees working in the trench until after the spoil piles were moved further away from the trench. However, the compliance officer testified he saw one of TAB's employees in the trench during the inspection; we find this testimony sufficient to establish employee exposure. Accordingly, we conclude that the Department has made out a prima facie case of violation.

We further agree that this violation was properly cited as "other than serious" due to the relatively low probability of death or serious physical harm in the event spoil pile materials were to fall into the trench.

¹ Construction Code 05.160(b)(9)(A) was replaced by Construction Code 05.160(j)(2), effective August 10, 1990. Because the substantive requirements of the code provision remained essentially unchanged, we find no prejudice to the employer by allowing an amendment of the cited code provision to conform the pleadings to the evidence.

Item 2

Construction Code 05.160(b)(3) provided:

The walls and faces of all excavations in which employees are exposed to danger from moving ground shall be guarded by a shoring system, sloping of the ground, or some other equivalent means.²

The uncontroverted evidence establishes that the trench was approximately five feet deep, meaning that the employer was obligated to provide adequate protection for employees in the trench by means of sloping, shoring or some other protective system. See Construction Code 05.162(a)(1). It is further beyond dispute that the sides of the trench were not sloped or shored in accordance with code requirements.

TAB's principal defense to this violation is that the ground in the trench was largely frozen and therefore there was virtually no risk of a cave-in or trench collapse. Expert witnesses from both sides attempted to estimate the depth of frozen ground based on soil information and weather records. Their calculations, although differing slightly, lead us to conclude that the depth of frozen ground was likely to have been 2 to 2-1/2 feet. The experts disagreed more sharply as to whether given this depth of frozen ground, the walls of the trench were subject to a potential cave-in or collapse. As noted by the Department's

² Construction Code 05.160(b)(3) was replaced by Construction Code 05.162(a)(1), effective August 10, 1990. As with the code provision cited in Item 1, we find that the substantive requirements of the provision remained essentially unchanged and that there is no prejudice to the employer by allowing the cited code provision to be amended to conform the pleadings to the evidence.

expert, the apparently conflicting expert opinions might be explained by the differing assumptions relied upon by each expert.

We find it unnecessary to resolve the apparent conflict in expert testimony as to the likelihood of a trench collapse or cave-in. We find that the applicable code provision requires sloping, shoring or other protective systems in all excavations with only two exceptions: (1) where an excavation is made entirely in stable rock, or (2) where the excavation is less than four feet in depth. See Construction Code 05.162(a)(1)(A) and (B). Neither of these two exception apply here. Significantly, there is no exception for frozen ground, nor is ground temperature considered a factor in determining compliance with the code (although frozen conditions may be taken into account in classifying a violation or assessing a monetary penalty).

Furthermore, evidence regarding the likelihood (or unlikelihood) of a potential cave-in is only recognized in connection with excavations less than four feet deep. See Construction Code 05.162(a)(1)(B). In other words, the code flatly requires protective systems for employees in trenches over four feet deep regardless of the likelihood of a potential cave-in. To permit employers to present evidence that there was little or no risk of a potential cave-in would subject each trench or excavation to a potential "battle of the experts" as to the probability of a trench collapse. We believe the clear language of the code was meant to avoid such disagreements by providing a clear and uniform standard for trenches over four feet deep.

TAB argues that the Department should follow a rule of reasonableness and not focus on the mere "possibility" that an accident might occur. Based on the evidence presented, we believe the Department did take a reasonable approach by classifying the violation as "other than serious" in recognition that part of the trench was frozen ground and that there was a relatively low probability of a cave-in.

TAB also defends against this violation on the grounds that the backhoe operator did not follow instructions to only excavate up to four feet deep (the instructions presumably were meant to avoid triggering the sloping/shoring requirement). To the extent that this argument raises the affirmative defense of "unpreventable employee misconduct," we find that TAB has failed to meet its burden of proof as to the recognized elements of this affirmative defense. See Rothstein, Occupational Safety and Health Law § 117 (3d ed. 1990).

Item 3

Construction Code 05.150(b)(2)(D) provides:
No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:

- (i) The vehicle has a reverse signal alarm audible above the surrounding noise level, or
- (ii) An observer stationed with a clear view of the operator and the rear of the equipment signals that the backing operation is safe.³

³ The Department failed to cite this code provision in its entirety. While we disapprove of such a potentially misleading omission, we find no prejudice to the employer and deem the omission to be harmless error.

It is undisputed that the backup alarm system on the John Deere caterpillar was not operational at the time of the inspection. The compliance officer personally saw the caterpillar backing up without either an observer or an alarm warning. TAB argues that it was unaware that the alarm system was not operating properly and that the problem had not been mentioned at the regular safety meeting. An employer's lack of knowledge of a potential hazard, however, is not recognized as a valid defense where the employer, in the exercise of reasonable diligence, should have been aware of the hazard. See Rothstein, supra, at § 105. In this case, it is clear to us that TAB's management should have ensured that all warning systems on its heavy equipment were in proper working order prior to use. The backup alarm system can hardly be said to be a hidden or latent condition of which the employer could not reasonably be expected to be aware.

TAB also argues that mitigating circumstances should be taken into account with respect to this violation. We note that no other employees were near the caterpillar during the backing-up observed by the compliance officer and that no accident occurred. We believe the compliance officer properly took these factors into account in classifying the violation as "other than serious" and we see no reason to change the compliance officer's classification.

Items 4 And 5

Construction Code 05.150(b)(2)(R) provides that crew transport vehicles shall be equipped with a first aid kit and fire

extinguisher. General Safety Code 01.0501(c) further delineates the contents of the required first aid kit and requires that such kits be located in every vehicle used to transport employees and shall be readily available at the worksite.

It is undisputed that one of TAB's pickup trucks at the worksite was not equipped with either a first aid kit or a fire extinguisher. TAB argues that the vehicle was not normally in regular service and therefore did not have the required equipment. While this circumstance may explain TAB's noncompliance with the code, it does not excuse it. We believe the Department correctly cited these two technical code violations and took into account the mitigating circumstances set forth by TAB in classifying the violations as "other than serious." Because the first aid kit and fire extinguisher violations do have a direct relation to employee safety in the event of an accident, we cannot agree with TAB that these violations are de minimis or minor technical violations.

ORDER

Based on the foregoing findings of fact and conclusions of law, it is hereby ordered that each of the violations cited by the Department is AFFIRMED.

DATED this 12th day of December, 1991.

ALASKA OCCUPATIONAL SAFETY
AND HEALTH REVIEW BOARD

BY: Donald F. Hoff Jr.
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BY: Lawrence D. Weiss
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NOTICE TO ALL PARTIES

A person affected by an Order of the OSH Review Board may obtain a review of the Order by filing a complaint challenging the Order in Superior Court. The affected person must file the complaint within 30 days from the date of the issuance of the Order by the OSH Review Board. After 30 days from the date of the issuance of the Order, the order becomes final and is not subject to review by any court. AS 18.60.097(a).

CERTIFICATION

I hereby certify that the foregoing is a full, true and correct copy of the Decision and Order in the matter of the Alaska Department of Labor vs. Tab Electric, Inc., Docket No. 91-865, filed in the office of the OSH Review Board at Juneau, Alaska, this 12th day of December, 1991.



Mary Jean Smith
OSH Review Board

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