COMMONWEALTH OF KENTUCKY
OCCUPATIONAL SAFETY AND HEALTH
REVIEW COMMISSION

KOSHRC NO. 2371-93

SECRETARY OF LABOR
COMMONWEALTH OF KENTUCKY — COMPLAINANT

VS.

CONGLETON-HACKER COMPANY — RESPONDENT

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DECISION AND ORDER
OF THIS REVIEW COMMISSION

We called this case for review on our own motion which is permitted by section 47 (3) of our rules of procedure (ROP).[1] Neither party petitioned this commission for review under ROP 48 (1). Following our order for review, the parties submitted briefs.

By our order we limited review to consideration of citation 1, item 2, charging Congleton (which had several employees working in an excavation 12 feet deep) with not using "...protective measures to protect the employees from cave-ins." Because we did not call citation 1, item 1 for review, our hearing officer's decision to affirm that citation and penalty is now a final order of this commission. ROP 47 (3). We turn, then, to the question whether our hearing officer's order which concluded the walls of the excavation were "...sloped at an angle greater [than] that permitted by the regulation and by not having an adequate protective system in place..." was correct. Recommended order (RO) 7.

[1] Enacted as section 47 (3), 803 KAR 50:010.

Among other things, our hearing officer found "some walls of the site were benched for Type B[2] soil..." while some had "near vertical walls." RO 6. By the second day of the compliance officer's inspection, Congleton installed some shoring (wooden supports for the earthen walls of an excavation) which the hearing officer found inadequate. RO 6.

Congleton argued in its brief (p. 8) to the hearing officer that its vice president (Mr. Cowgill) assessed the soil as type A but sloped the sides of the excavation for type B soil which, according to his estimation, complied with the cited trenching standards. 29 Code of Federal Regulations (CFR) 1926.652[3]. Our hearing officer rejected Congleton's reasoning. RO 7. We agree with our hearing officer's recommended order and adopt it as our own. But since we called this case for review of item 2, we will expand on our hearing officer's reasoning.

Section (a) (1) of 1926.652 says employees working in excavations shall be protected from cave ins by protective systems according to subparagraphs (b) or (c). Since (c) deals with support systems within the excavation to prevent the earth walls from collapsing and Congleton had no such system the first day of the inspection and only an inadequate system the second, Congleton is left with those systems described in paragraph (b). Basically

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[2] Type B soil may be sloped to an angle of 45 degrees. Type A soil is more cohesive and the sides may be sloped to 53 degrees. Type C soil is less cohesive than B so the permissible slope is only 34 degrees. 1926.652, Appendix B, table B-1.

[3] Adopted in Kentucky as 803 KAR 2:415.

(b) says the employer has four options. If the employer does not slope to 34 degrees in accordance with the first option, then it must, under this paragraph, comply with options (2), (3) or (4). As our hearing officer found, Congleton sloped to at least 45 degrees and in some places steeper. RO 6.

Option (1) says trench walls may be sloped to 34 degrees (90 degrees being vertical walls and zero degrees being flat ground). We construe option (1) to mean that regardless of the soil quality, the employer may slope to 34 degrees which will, as the drafters of the standard determined, protect his employees from the hazards associated with cave ins even though no support systems (shoring or trench boxes for example) are used.

As we said, respondent did not comply with option (1) (RO 6); that leaves (2), (3) or (4). Option (3) says the employer may use "tabulated data" to design a system of sloping and benching. We find Congleton-Hacker did not introduce tabulated data at the hearing so reliance on that option is foreclosed. At trial respondent Congleton stipulated it would not rely on option (4) which says the shoring and benching can be designed by a registered professional engineer. Transcript of the evidence (TE) 152-153. That leaves respondent with option (2) which says the slope of the excavation shall be designed using Appendices A and B which immediately follow 1926.652.

Appendix A (c) (1) and (2) says soil shall be classified according to visual and manual tests. Appendix A (c) (2). Using

the tests, a competent person[4] can determine whether soil is cohesive or granular, dry or wet, layered or fissured. He will determine, using a manual test, the unconfined compressive strength of the soil and whether it is composed of clay, gravel, sand or silt. Once the competent person performs the tests, he classifies it as type A, B or C. Appendix A (c) (1). Then, the soil classified, the company may use table B-1 of Appendix B to learn the maximum allowable slope it may use. Appendix B (c) (2).

If, according to a company's analysis of information obtained from the visual and manual tests, the soil is type A, then a slope of 53 degrees is permissible; for B it is 45 degrees and for C 34 degrees. But Congleton would argue Mr. Cowgill did that. We find he did not. While Mr. Cowgill did look at the soil, we find he did not represent he made a visual test described by Appendix A. TE 229-232. But if we assume he did, merely for the sake of argument, we find he still did not perform the manual test which is also required.[5] Mr. Cowgill said he took some excavated soil and rolled it up into a ball to judge moisture content. TE 226.

But that by itself falls far short of the test for plasticity which further requires the tester to roll the soil into threads two inches by 1/8th inch (approximately) to determine cohesiveness. Appendix A (d) (2) (i). Neither did Mr. Cowgill perform any tests

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[4] 1926.650 (b).

[5] Super Excavators, Inc., CCH OSHD 29,258 (a federal ALJ decision), says the company supervisor in charge of the excavation must be aware of the requirements of Appendix A to 1926.652. In this case the foreman was responsible for classifying the soil and deciding on an appropriate protective system.

which would tell him the unconfined compressive strength of the soil using a penetrometer, sheervane or the thumb penetration test (which can only distinguish between A and C soils). Appendix A (d) (2) (i) through (v).

To sum up, 1926.652 (b) (1) and (2) say if a company is going to slope and wants to slope steeper than 34 degrees, it must do at least one visual and one manual test. Appendix A (c) (2). No longer, under the excavation standards, may an old hand simply eyeball the soil, make a ball of it and say "let's go".

The system of manual and visual tests is very rigid and must be so to provide guidance to employers who (without the benefit of professional help) dig trenches where their employees will work; but the regulation has a sensible escape hatch. If the visual and manual tests are not done, the company has the option to use "other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials or the U.S. Department of Agriculture textural classification system." Appendix A to 1926.652, paragraph (c) (2). But we find the company did not employ these "other methods" so described.

Next Congleton argues that Mr. Foy, with a master's degree in civil engineering, performed soil analysis on the sides of the excavation to confirm the presence of type A soil. TE 304. But Mr. Foy's analysis took place on July 21, 1993 (TE 303) some 37 days after the inspection and exposure of Congleton's employees to the hazard of cave ins. This after the fact analysis is irrelevant and labor's objection to Mr. Foy's testimony should have been

sustained. Section (a) (1) of 1926.652 makes it very clear that

> Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with paragraph (b)... [sloping or benching] (emphasis added)

We construe that to mean the visual and manual tests (when selected) must be performed prior to employees entering the excavation. After all, employees can only be protected before the fact, not after they have entered an untested excavation site or completed the work and left. In Jack Conie and Sons, Corp., CCH OSHD 30,244 (a federal administrative law judge decision), the compliance officer testified he cited the employer for not sloping to 1 and 1/2 to 1 (34 degrees)[6] in the absence of soil samples, tabulated data or a registered professional engineer. The United States Court of Appeals for the District of Columbia upheld the citation saying:

> ...when an employer chooses the sloping standards in Appendix B (instead of an allowable alternative method) but fails to conform to them, the employer has failed to put in place an adequate system to protect employees from serious injury or death.[7]

Had the company brought in a registered engineer to perform the tests before employees were permitted to enter the trench, that would have been sufficient. Remember, Mr. Foy, the company expert found type A soil. But that was too late in the process. Employers cannot guess about soil quality. According to the regulations, we conclude the testing specified in Appendix A must

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[6] Table B-1 of Appendix B.

[7] Conie Construction, Inc. v. Robert Reich, Secretary of Labor and OSHRC, 94-1592 (CA D.C. 1995), CCH OSHD 31,003.

be done before employee exposure and so hold. 1926.652 (a) (1).

If the company selected option 4, they could then dispense with the visual and manual tests required by option 2 discussed above.

But once a company decides to slope, however, (and will not use a registered professional engineer or "tabulated data"), then the visual and manual tests must be learned by company personnel and performed before employees are exposed to excavations with a slope greater than 34 degrees.

The visual and manual tests are fairly straightforward; once mastered, they will allow companies to dig excavations with sides steeper than 34 degrees while still protecting workers from cave ins. The excavation standard (subpart P of 1926) makes no provision for grandfathering in old, informal methods for determining whether sloping is necessary. These imprecise methods have resulted in the accidental deaths of many employees from cave ins. We embrace the implied premise contained in the excavation standards that those old, unworkable practices are rejected in favor of the regulations now in place.

We affirm the hearing officer's recommended order to the extent it is consistent with this decision.

We affirm citation 1, items 1 and 2, each with a penalty of $4,000, as serious violations.

If abatement has not already been accomplished by respondent, we order it to do so immediately.

It is so ordered.

Entered June 4,1996.

George R. Wagoner
Chairman

Charles E. Yates
Member

Donald A. Butler
Member

Copy of the foregoing Order has been served upon the following parties in the manner indicated:

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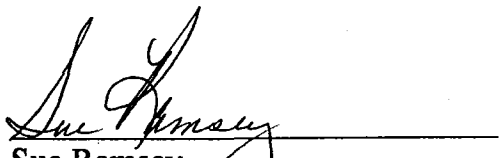
This 5th day of June, 1996.



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