

THIS AMENDED ORDER is entered solely to correct typographical errors in the original Order filed July 12, 2012. The only amendment is to change the word "respondent" to "complainant" in Paragraphs 4-7 of the Conclusions of Law. In all other respects, the Amended Order is the same as the original Order.

THIS MATTER was scheduled for hearing and heard by the undersigned on March 26, 27 and 28, 2012 in Charlotte, North Carolina.

The complainant was represented by Newton G. Pritchett, Jr., Assistant Attorney General; the respondent was represented by Philip Van Hoy and John DiBiasi, the latter of whom was admitted to practice in this forum *pro hac vici* by the North Carolina Occupational Safety Review Commission.

There were no preliminary matters to be determined prior to the start of the evidentiary hearing. The complainant waived an opening statement, but the respondent's counsel did make an opening statement.

Based on the official file, the testimony of the witnesses, the documents admitted into evidence and the arguments and submittals of counsel, the undersigned makes the following

FINDINGS OF FACT

1. The complainant as Commissioner of Labor of the State of North Carolina is charged by law with compliance with and enforcement of the provisions of the Occupational Safety and Health Act of North Carolina (the "Act").

- 2. The respondent is a corporation with its principal place of business in Roanoke, Texas.
 - 3. The respondent is a utility contractor with 290 employees.
- 4. The respondent had a contract to construct a parallel sewer interceptor along the Rocky River in Cabarrus County from Highway 29 to Thunder Road near Concord Mills Mall in Concord, North Carolina.
- 5. On March 9, 2010, the respondent was engaged in constructing this sewer interceptor and was in the area behind the Pavilion at Kings Grant Shopping Center, which is located adjacent to I-85 South at the Concord Mills Boulevard exit across that boulevard from Concord Mills Mall and immediately south of the Concord Regional Airport.
- 6. On March 9, 2010, Twanette Haiser, a veteran health compliance officer employed by the complainant, was conducting a general scheduled inspection at a Dick's Sporting Goods store located in the Pavilion at King's Grant Shopping Center.
- 7. While outside that store, HCO Haiser observed some concrete sewer pipe at a site behind the store down in a lower area. She also observed an earthen ramp and some construction activity in that same area, which was in a swampy wetlands terrain.
- 8. As of that time, Cabarrus County was determined by the complainant to be a "special emphasis" area because of the large amount of construction then ongoing in that county. Because of the high fatality rate due to falls and electrical accidents, any construction activity in Cabarrus County was to be considered for a general scheduled inspection pursuant to the special emphasis strategic plan.
- 9. After receiving permission from her supervisor Paul Sullivan, HCO Haiser commenced a general scheduled inspection of the respondent's sewer interceptor work site behind the Pavilion at King's Grant. She called for assistance and Compliance Safety Officer Lee McKinney joined the inspection.
- 10. While initially observing the respondent's construction from an off-site vantage point at the Dick's Sporting Goods store, HCO Haiser observed a yellow loader backing up the earthen ramp. She could see the operator and another person riding on the loader with his body halfway in and out of the loader cab.
- 11. HCO Haiser initiated her inspection of the respondent's worksite approximately 1:30 pm on March 9, 2010. She conducted an opening conference with Victor Tabares, the respondent's foreman, who consented to the inspection. Approximately one hour later, Terry Brem, respondent's corporate safety director, arrived at the site and accompanied HCO Haiser during the inspection.

- 12. During the course of the inspection, which lasted from March 9 to March 10, the compliance officers took measurements, collected some documents from the respondent, interviewed a number of respondent's employees and took photographs of the job site and its conditions.
- 13. The compliance officers also conducted a preliminary closing conference on March 10, 2010 with Terry Brem and a final closing conference on August 13, 2010, also with Mr. Brem.
- 14. On August 16, 2012 the compliance officers and their supervisor recommended and issued five citation items alleging willful serious violations of the Act and one additional item alleging a serious violation of the Act.
- 15. At the time of the inspection, the respondent had nine employees working at the site.
- 16. At the time of the inspection, the respondent was installing 48 inch diameter concrete pipe and associated concrete manholes for the Rocky River sewer interceptor. The entire project involved some 25,000 linear feet of pipe. The respondent had installed all but some 2,500 remaining feet of pipe.
- 17. According to HCO Haiser's testimony, the respondent was behind schedule in completion of the project but was not being penalized by the other contracting party.
- 18. The compliance officers observed the respondent's excavation where it was actively installing pipe and took photographs and measurements and later made a drawing, all of which were admitted into evidence.
- 19. The excavation measured approximately 13 to 15 feet deep. It was 38 feet long. Along the perimeter of the excavation were 1½ inch thick steel plates 20 feet in length which were embedded vertically at various elevations. These steel plates are also known as "street" plates because they are commonly used to cover holes in streets during repair activities. Inside this perimeter were two trench boxes. One trench box was 12 feet wide and is known as the "Oscar Renda" trench box. It is 10 feet long. The other is 9 feet wide and 28 feet long and is known as the "Speed Shore" trench box, being named for its manufacturer.
- 20. The trench boxes were installed end to end in the excavation, which left a gap on either side between the two because of the difference in width between the two boxes.
- 21. Both trench boxes were "suspended" in the excavation by means of ½ inch thick chains run through holes in the vertical steel plates and connected to the welded "collar" of each trench box. The Oscar Renda trench box was suspended approximately

42 inches above the floor of the excavation below it and the Speed Shore trench box was suspended approximately 76 inches above the floor of the excavation below it.

- 22. In the case of both trench boxes, the area below the side of each suspended trench box had a steel street plate on the perimeter of the excavation at that point, which steel plate was embedded into the earth or rock below the bottom of the excavation.
- 23. At the eastern edge of the excavation, the installed 48 inch concrete pipe extended about 4 feet into the open excavation where the Speed Shore trench box was located. This pipe was embedded in gravel to a height of one foot above the pipe. The exposed end of the pipe had a cap on it extending back 6 inches and had sandbags beside it to hold the surrounding gravel in place.
- 24. Outside the western edge of the excavation, the respondent had an excavator which it used to dig the excavation. The excavator was rated at 90,000 pounds. That end of the excavation had steel plates closing it off and the excavator rested on other steel plates laid flat to provide an even surface.
- 25. Around the outside of the steel plate perimeter of the excavation, the soil was backfilled or left at a level where the steel plates were exposed to different heights or amounts. At no point along the perimeter were the plates exposed down to their embedded end and all showed at least several feet of soil covering on the outside.
- 26. HCO Haiser determined that the soil on which respondent was then excavating was Type C soil. Several of respondent's witnesses testified that the soil was C-80 soil. All of the witnesses that testified at the hearing agreed that the soil at that excavation was not stable and was very porous and full of water.
- 27. At the time of the inspection, there was water and some liquefied soil flowing into the excavation at both points at which the differing width trench boxes intersected. At those points the respondent had two submersible pumps in the excavation, both of which were hooked to a generator and were pumping water out of the excavation. There was evidence in the form of respondent witness testimony and sound from an audio-video of the excavation that suggested that the pumps were under utilized due to the relative small amount of water in the excavation, because they were heard to be sucking air instead of water.
- 28. At the time the inspection was initiated, Foreman Tabares was operating the excavator at the excavation site, cleaning up the bottom of the excavation after some rock had been broken up by another piece of equipment. When HCO Haiser approached the excavation, she saw two of respondent's employees climb out of the eastern end of the excavation and photographed them doing so.
- 29. A ladder was located in the excavation on the south side, near the exposed concrete pipe. The purpose of the ladder was to allow the employees to enter and exit the excavation. A pick ax was located in the excavation on the excavation floor near the

exposed pipe. The purpose of the pick ax was to pry off the cap on the end of the exposed pipe when it was time to install a new pipe section.

- 30. Along the north side of the excavation, but outside it, HCO Haiser observed an area in front of the generator with foot prints. This was in an area where the soil level was well below the tops of the steel plates forming the north edge of the excavation. This is the area termed the "secondary trench" by HCO Haiser in her testimony. In this area, she also observed cracks or fissures in the soil, which she believed were evidence of soil that was likely to slough off or cave in.
- 31. This "secondary trench" measured 14 feet by 5 feet wide by 6 feet deep. It appeared to HCO Haiser that benching of the soil had been attempted in this area. She believed that some of the soil had fallen in against the steel plates; that this soil had not been backfilled against the plates.
- 32. The characterization of this area as a secondary trench was disputed by the respondent, as was the implication by the complainant that the footprints near the generator belonged to respondent's employees. HCO Haiser did not observe any of respondent's employees in that area and all the employees she interviewed did not admit to being in that area. The worksite was not secure from outsiders, although the work site was in an area not readily accessible to or used by the public.
- 33. The respondent offered testimony from a number of witnesses, who believed that the lowered elevation and condition of the soil in the "secondary trench" were caused by the leaching of the water in the soil into the bottom of the excavation. These witnesses believed that once the water left the "secondary trench", the volume of that soil was reduced, causing it to become more compressed and to crack. Mr. Tabares testified there was no excavation to create the "secondary trench".
- 34. The undersigned cannot reconcile the conflicting testimony of the witnesses regarding the "secondary trench". There is little evidence of a hazard or of employee exposure to a hazard in this area given the positioning of the steel plates, which extended down into the soil below the excavation floor and extended several feet above the soil level of the "secondary trench".
- 35. HCO Haiser observed two of respondent's employees, Manuel Zarate and Francisco Rojas, exiting the excavation at the east end. It appeared to her that another employee, who was standing at the west end near the excavator, was telling Messrs. Zarate and Rojas to get out of the excavation.
- 36. Along but outside the northern perimeter of the excavation, near the Oscar Renda trench box, was the material that had been excavated from within that box. From complainant's photos, it appeared that the excavated material, at least that which is on top, is a grayish wet soil. HCO Haiser testified that this material was within 2 feet of the edge of the excavation.

- 37. From the complainant's photos, it is clear that there is excavated material that constitutes "spoil", but because of the placement of the material, there is no clear delineation of a "spoil pile". In addition, the steel plates in this area extend above the soil level on that side of the excavation, such that any shifting of the spoil would not appear to be able to enter the excavation, unless the steel plates failed. The steel plates on that side also extend at least 2 feet into the soil below the excavation floor, creating a barrier separating the excavation area from any lateral release of soil below the spoil pile into the excavation due to the weight of the spoil.
- 38. During the course of the inspection of the excavation, HCO Haiser requested of the respondent's employees a copy of the trench safety plan for the excavations to be performed by the respondent on this project. The respondent provided a written plan dated October 14, 2008 prepared by Sheffer Engineering. A review of this plan by HCO Haiser indicated that it bore little resemblance to the excavation safety plan actually being utilized by the respondent at the time of the inspection.
- 39. The "Sheffer Plan" required utilization of trench boxes in the customary way, in which the initial trench box is placed within 2 feet of the bottom of the excavation. If the excavation were sufficiently deep, trench boxes would be stacked two or three high and/or the sides of the excavation above the trench box(es) would be sloped in accordance with the provisions of the Act.
- 40. The "Sheffer Plan" did not contemplate usage of steel plates at all, so it also did not provide for suspension of the trench boxes via chains from the steel plates. In addition, this Plan did not make any provision for controlling water in the excavation and for the effects of hydrostatic pressure in the excavation. This Plan contemplated that the only water to be encountered in the excavation was falling rainwater because water in the excavation was to be eliminated by a "well point" system to draw water away from the excavation area.
- 41. The fact that the "Sheffer Plan" deviated so substantially from the excavation safety plan then being utilized by the respondent created considerable concern on the part of the complainant that the respondent's employees working in and about the excavation were subjected to a great risk of serious injury or death, due to the unorthodox system the respondent was using for shoring the sides of the excavation.
- 42. Specifically, a) since the excavation was 13 to 15 feet deep, b) since there was water and some liquefied soil flowing into the excavation, c) since the steel plates were not specified to be used or backfilled to help stabilize them, d) since the compliance officers were not provided with or familiar with the system utilized by the respondent and e) since the respondent had prior citation violations involving excavations, the complainant believed the respondent was exhibiting deliberate disregard for the provisions of the Act regarding excavations.
- 43. Foreman Tabares represented to HCO Haiser that he was the competent person on the jobsite. The respondent presented documentation to the complainant of

various training certificates issued to Mr. Taberes indicating that he had passed competent person training. There was no conflict in the evidence that Mr. Taberes qualified to be a competent person as defined in the Act.

- 44. Mr. Brem advised HCO Haiser during the inspection that respondent had previously used the trench safety system being utilized by it on this jobsite but did not provide her with any specifics at that time. About 5 months later, Mr. Brem provided the complainant with a copy of a plan that was developed for a jobsite in San Antonio, Texas. This "San Antonio" plan was dated after the date of the Kings Grant inspection.
- 45. Mr. Brem was not completely forthcoming and cooperative with the complainant. While he provided some documents to HCO Haiser and answered some of her questions, he did not clearly and expeditiously explain and document the propriety of the respondent's use of the trench safety system being used on this jobsite. In fact, he initially disciplined Messrs. Zarate and Rojas for being in the excavation without permission and Foreman Tabares for letting them in the excavation. He also told HCO Haiser that he could not suspend Foreman Tabares because he needed him too much for this job.
- 46. These events led the complainant to believe that the respondent had no effective trench safety system in place on this jobsite and that the respondent did not really believe in the safety of the system that it was using.
- 47. The responded proffered Phillip Thompson as an expert witness. Mr. Thompson is a licensed professional engineer who designs shoring equipment and systems and has served as a consultant for Speed Shore Corporation, the manufacturer of one of the trench boxes used on this job.
- 48. Sometime in the 1990s, Mr. Thompson designed a shoring system using vertical steel plates as the support sides of the excavation, with one or more trench boxes suspended between the plates by chains to help brace the plates. The plates were to be embedded below the excavation floor at least 2 feet into the soil or at least 2 inches into rock. This system was designed for job situations involving unstable soil.
- 49. This system in a written plan format was provided in the 1990s to the respondent. Neither Mr. Thompson nor the respondent could provide a copy of the original plan, but Mr. Thompson provided an after-the-fact report for the Kings Grant jobsite for the respondent for the purposes of this hearing. This report included engineering calculations for the trench safety system and concluded that the system being used by the respondent on the jobsite as it was inspected by the complainant was safe, eliminated the hazards of an excavation and prevented employee exposure to any excavation hazard.
- 50. Mr. Thompson also stated that the "Thompson Plan" as utilized on the Kings Grant jobsite was even safer than his original design because the respondent used

heavier gauge chains that were double-looped instead of single-looped and because the steel plates were one-quarter inch thicker than the ones typically specified in his plans.

- 51. In addition, Mr. Thompson stated that the transition between the two trench boxes could have been "a little tighter", but that the water and soil getting into the excavation was not a problem and was being handled by the submersible pumps. He also stated that the plates would not be affected adversely or compromised because they were not backfilled or because of a shift in the soil outside the excavation. In addition, the soil outside the excavation created less of a load because of the water leaching from the soil into the excavation.
- 52. The complainant's photos showed one of the steel plates bowed at the bottom. Mr. Thompson stated that this condition did not create a hazard as it could be due to misalignment or to some amount of load. Because the strength yield of steel is twice the tensile yield, the steel can bend and not lose the strength needed to carry the load.
- 53. Mr. Thompson also stated that while his excavation safety system was not "pretty", it was essentially "fail-safe". The complainant offered no expert testimony to refute the engineering or opinions of Mr. Thompson.
- 54. The respondent had initially utilized the Sheffer Plan on the job, but the "well point" system did not eliminate the water in the excavation as the plan design intended. For this reason the respondent switched to using the variation of the Thompson Plan being utilized at the time of the inspection. The respondent relied on Mr. Tabares' memory and experience in using the Thompson Plan rather than having a site specific plan for the job. Reliance on the memory of the foreman for construction of an excavation safety system is antithetical to the provisions of the Act requiring a design based on engineering or established data.
- 55. The respondent has utilized the Thompson Plan for excavation operations on a number of other projects in the Charlotte area, including one that was subsequently inspected by complainant and for which no violations were issued. However, on this jobsite, the respondent had no assurance that during the course of the work it was proceeding with knowledge that this revised shoring design was adequate for the conditions it experienced.
- 56. During the course of her inspection, HCO Haiser learned that Javier Castillo was riding on the loader that Jorge Gonzalez was driving up the earthen embankment as observed by her on March 9, 2011. She interviewed these employees but did not ask whether they were permitted by respondent or Foreman Tabares to ride in that fashion. Mr. Tabares denied that he saw this riding incident and stated that he does not allow employees to improperly ride on the equipment.

- 57. HCO Haiser could not testify that Foreman Tabares could observe Messrs. Castillo and Gonzalez on the loader from his location on the excavator. The two locations were some distance apart and separated by a stand of trees.
- 58. Although she requested of Mr. Brem respondent's written policy concerning employees riding equipment, none was provided to her except a policy concerning industrial trucks and forklifts. Mr. Brem did orally inform HCO Haiser that Mr. Castillo was not permitted by respondent to ride on the loader. Messrs. Castillo and Gonzalez were suspended for three days by Mr. Brem for this incident. This suspension was imposed after the inspection, but before the citations were issued by the complainant.
- 59. The loader has a warning label affixed to it which prohibits riders other than the driver.
- 60. The respondent provided copies of its safety manual, new hire checklist (which referenced receipt by an employee of respondent's safety manual), the disciplinary action policy (part of the safety manual), daily safety forms, tool box meeting topics and a safety, health and accident prevention plan. It appears to the undersigned that the respondent has an employee safety policy and program that is comprehensive, communicated to employees and enforced.
- 61. The respondent offered the testimony of Gary Roskoski, a consultant who was qualified as an expert in construction safety and federal OSHA compliance. Mr. Roskoski served as a compliance officer and later as a supervisor and an area director for federal OSH.
- 62. In the expert opinion of Mr. Roskoski, the "Thompson Plan" as utilized by the respondent on the King's Grant jobsite was more than adequate to protect the respondent's employees from a cave-in such that there was no employee exposure to a hazard.
- 63. Mr. Roskoski reviewed the safety manual and the safety policies and procedures of the respondent and found them to be satisfactory, based on his experience.
- 64. The proposed penalties were computed pursuant to the provisions of the complainant's Operations Manual. However, the proposed penalties for the five items of Citation 1 were calculated based on an assertion that these violations were willful. The respondent was entitled to no credit for good faith or history. Based on the fact that the respondent does have prior violations of the type alleged here and because the respondent exhibited little good faith in its handling of the inspection in this case, the undersigned declines to allow any credit in this case.

Based on the foregoing Findings of Fact, the undersigned makes the following

CONCLUSIONS OF LAW

- 1. The foregoing Findings of Fact are incorporated by reference as Conclusions of Law to the extent necessary to give effect to the provisions of this Order.
 - 2. The respondent is subject to the provisions of the Act.
- 3. The complainant has proved by a preponderance of the evidence a violation of 29 CFR 1926.652(a)(1) in that the respondent did not have an adequate protective system designed in accordance with paragraph (b) or (c) of that section. Specifically, the respondent did not have a design by an identified registered professional engineer in writing on the jobsite, with the appropriate configurations and calculations as required by 29 CFR 1926.652 (b)(4). Such a violation is a serious violation of the Act because there existed a substantial probability that death or serious physical harm could result from the failure of the respondent to have the shoring system it was using on that jobsite designed by a professional engineer. See Aviation Constructors, Inc., 18 BNA OSHA 1917 (1999).
- 4. The complainant has failed to prove by a preponderance of the evidence a violation of 29 CFR 1926.652(g)(1)(ii).
- 5. The complainant has failed to prove by a preponderance of the evidence a violation of 29 CFR 1926.652(g)(2).
- 6. The complainant has failed to prove by a preponderance of the evidence a violation of 29 CFR 1926.651(h)(1).
- 7. The complainant has failed to prove by a preponderance of the evidence a violation of 29 CFR 1926.651(j)(2).
- 8. The complainant has failed to prove by a preponderance of the evidence a willful violation of any provision of the Act.
- 9. The respondent has proved by the preponderance of the evidence the affirmative defense of isolated instance of employee misconduct to the alleged violation of the General Duty Clause of the Act relating to the additional employee riding on the loader with the driver.

Based on the foregoing Findings of Fact and Conclusions of Law, IT IS ORDERED as follows:

- 1. Citation 1, Item 1 is affirmed as a serious violation of 29 CFR 1926.652(a)(1) with an adjusted penalty of \$7,000.00.
 - 2. Citation 1, Items 2, 3, 4 and 5 and Citation 2, Item 1 are dismissed.

- 3. This adjusted penalty shall be paid within twenty (20) days of the filing date of this Order.
 - 4. All violations not previously abated shall be immediately abated.

This day of July, 2012.

RICHARD M. KOCH HEARING EXAMINER

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this date served a copy of the foregoing AMENDED ORDER upon:

JOHN P DIBIASI LEWIS & McKENNA 82 EAST ALLENDALE ROAD SADDLE RIVER NJ 07458

PHILIP VAN HOY VAN HOY REUTLINGER ADAMS & DUNN PLLC 737 EAST BOULEVARD CHARLOTTE NC 28203

NC DEPARTMENT OF JUSTICE LABOR SECTION P O BOX 629 RALEIGH NC 27602-0629

by depositing a copy of the same in the United States Mail, First Class;

NC DEPARTMENT OF LABOR LEGAL AFFAIRS DIVISION 1101 MAIL SERVICE CENTER RALEIGH NC 27699-1101

by depositing a copy of the same in the NCDOL Interoffice Mail.

> OSCAR A. KELLER, JR CHAIRMAN

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Nancy D. Swaney

Docket and Office Administrator

NC Occupational Safety & Health Review Commission

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