

establish and mark the location of their lines. (Tr. 44-47, 70, 145-146) DigSafe makes it clear, however, that the markings are approximations and are not guaranteed to be either complete or accurate. Therefore, the contractor must verify the locations and elevations of existing utility lines and structures prior to work. (Ex. CX-15, paragraph 1)

DigSafe was notified and the utilities came to the site and marked the location of their underground pipes and wires, including the gas lines owned by NStar Gas. (Tr. 147, 151-152, Ex. CX-1) While digging in an area away from the utility markings, Respondent's excavator came upon an unmarked wire. The excavator's assistant went into the hole and dug by hand trying to determine what type of utility, if any, was associated with the wire. What happened next is in dispute. What is not in dispute is that the excavator resumed work and severed what turned out to be a gas line. A police officer in the vicinity heard the line rupture. Realizing that a gas line was ruptured, he notified the gas company and the fire department, and proceeded to a nearby school to lead an evacuation. (Tr. 19-21) The area was evacuated and the roads blocked. (Tr. 21) Fortunately, there were no reports of any injuries.

As a result of a subsequent OSHA investigation, Revoli was issued a citation alleging two violations of the Act. Item 1 alleges a serious violation of 29 C.F.R. §1926.21(b)(2) for failure to adequately instruct its employees in the recognition and avoidance of unsafe conditions. Item 2 alleges a serious violation of 29 C.F.R. §1926.651(b)(3) on the grounds that the exact location of underground utilities was not determined by a safe and acceptable means, resulting in a gas main being severed.

Relevant Testimony

Robert Driggs

At the time of the incident, Robert Driggs was a police officer employed by the town of Needham, MA. (Tr. 17) On November 25, 2009, at approximately 7:30 a.m. he was directing traffic at the intersection of May and Pickering Streets. (Tr. 23) People were bringing their children to the nearby elementary school. (Tr. 19, 23) He was approximately 15 feet from the spot where Revoli was doing excavation work. (Tr. 18, 24, 123) The officer observed the backhoe operator clear away asphalt on the surface and take a bucket of soil out of the excavation site, thereby exposing a yellow tracer wire. The laborer went into the hole with a hand shovel and then left the hole. The operator took out another bucket load and came up with

clean sand and yellow caution tape. (Tr. 18-19, 26-27, Ex. CX9) Officer Driggs then walked about ten feet further from the site of the excavation when he heard the sound of a gas line purging. (Tr. 18, 21, 24) Officer Driggs notified his dispatch which notified NStar Gas and the Needham Fire Department. (Tr. 21, 28) After the intersection was shut down, Officer Driggs then went over to evacuate the nearby elementary school. (Tr. 19, 21) The officer also testified that, when he asked to see the backhoe operator's license, the operator replied "Why do I have to give you that?"

Officer Driggs testified that he has been involved in excavating since 1979 and recognized the yellow tracer wire as indicating the presence of a gas line. (Tr. 19-20). Officer Driggs also recognized the yellow tape as the type of caution tape that NStar Gas usually puts above their mains. (Tr. 26) It was his experience that, when revealing a yellow tracer line, an employee should hand dig around it and contact the utility. It should always be assumed that the utility is live until the company that services the line is contacted. (Tr. 20) Here, the laborer went into the hole with a hand shovel. However, after he exited, the backhoe operator continued digging. (Tr. 20)

Lance Berry

Lance Berry is the OSHA Compliance Officer ("CO") who conducted the inspection of the worksite. He was sent to the site upon receipt of a call from Needham police dispatch informing OSHA of a severed gas line. Upon his arrival at the site, the scene was already under the control of local fire and police department officials. Also, Revoli's foreman had already taken charge of his men and equipment. The CO presented his credentials to the foreman, started taking measurements, got some basic information and interviewed employees. (Tr. 35-36)

The foreman told the CO that the markings for the gas lines were not accurate and that he thought that Revoli was not responsible because they did everything they possibly could to avoid the incident. (Tr. 37-38) The foreman also told him that he wasn't in the area at the time, and that he had to trust his men to know what they were doing. (Tr. 38)

The backhoe operator, Jose Raboso, told him he knew where the markings were for the various utilities. According to the CO, Raboso told him that he saw the tracer wire after he started excavating. (Tr. 82) When he came upon this particular line, Raboso recognized it as a gas line. Because it was not in the marked location, he called another employee to go into the

hole and further dig around the pipe. Apparently, that employee indicated to the excavator that the line was abandoned and to go ahead and sever the pipe. (Tr. 38-39, 83) Raboso told him that he had numerous years of experience operating a backhoe. He also told the CO that the utility markings were nowhere near where he was digging. He told the CO that he saw the pipe before he broke it, but assumed that the line was dead. (Tr. 57) The CO testified that Jose Raboso spoke broken English and may not have fully understood his questions. However, he thought that Raboso was capable of answering his questions. (Tr. 57, 82)

Office Driggs told the CO that he observed that the first bucket coming out of the hole was pure sand, and that the second bucket revealed a tracer wire and yellow tape, at which point another worker entered the hole to determine whether the wire was marking a live utility. The next bucket scoop severed the pipe. (Tr. 40-41, 59) The CO pointed out that in photographic exhibit CX-9, the gas line is the orange pipe that was severed. He also pointed out that the yellow tape is coming out of the top of the picture, that the tracer wire is at the bottom, and that both had been broken. (Tr. 42)

The CO testified that gas mains are normally dug to a certain depth and bedded with sand because any coarser material would cause deterioration of the pipe due to the vibration of the soil. (Tr. 41) The pipe is laid and a tracer wire is put on top of the pipe. According to the CO, utilities are not always accurately marked. Therefore, when an excavator finds a line and is unsure whether it is live, he is to stop and notify the foreman who should call the particular utility. (Tr. 44, 50-51, 72) It is not appropriate to presume that the pipe is dead. (Tr. 50, 72) Employees are required to be properly trained on what to do when such an event occurs. (Tr. 51) They must also be trained that the utility markings are only approximations. (Tr. 70)

When approaching an area where there are underground utilities, the contractor is to stop and hand dig or use some method that is not nearly as severe to the soil as a backhoe. (Tr. 43) The CO concluded that the employee was not properly trained merely because he was an excavator who has done excavation before, was supposedly trained to recognize underground utilities, and should have known to stop work when he saw a tracer wire. Yet he chose on his own volition to continue excavating without taking the time to verify whether the line was live. (Tr. 87-89)

The CO pointed out that Exhibit CX-15 is a photo of the "General Notes" to the plans for the project. Note #1 states that the:

“Location of subsurface utilities shown is approximate and not guaranteed to be complete or accurate. The contractor shall verify the locations and elevations of existing utility lines and structures prior to commencement of work. The contractor must notify DigSafe and the local department of public works prior to any excavation, demolition or blasting work in public or private ways or utility company right of way or easement...”

To his knowledge, and contrary to the instructions in the “General Notes,” the foreman did not contact anybody when they came upon the unmarked line. (Tr. 46) The CO further testified that although the markings on the pavement were obscured, they could still be seen. Some of the markings were covered with dirt. These markings were not where the excavation took place and the line was severed. (Tr. 60) He could not recall if there were any gas main marks, but agreed that the broken line was not marked. (Tr. 61, 67) He estimated that the broken main was 10-18 feet from the markings. (Tr. 68) He also agreed that Revoli called DigSafe to come out and mark the utilities before they began excavating. (Tr. 68-69)

The CO explained that a double line marking indicates a gas main. (Tr. 76, Ex. R4-D) The lines are approximately 18 inches apart and mark a prohibited zone which cannot be excavated with power equipment. Rather, that area must be excavated by hand, with hand shovels and hand tools. (Tr. 76-78) If the excavator digs outside those 18 inches and breaks a gas line, the operator is still responsible because these lines are only approximations. (Tr. 81)

The Department of Public Utilities (“DPU”) conducted an investigation and found Revoli in violation. (Ex. CX-2) Although Revoli was found responsible for severing the gas line, they were not cited. They were, however, billed for the repairs by NStar Gas. (Tr. 47, 100) The CO did not know why the DPU did not issue a citation. (Tr. 97)

According to the CO, Revoli has been inspected 37 times and has received 23 citations since 1986. Since 2000, they have been cited 23 times with nine citations. (Tr. 50) However, according to OSHA records, this was the first time that Revoli broke a utility line. (Tr. 54) The CO testified that the current citations were serious because they involved a gas main with a source of ignition. In addition, this occurred near a school. (Tr. 50)

Jose Raboso¹

Jose Raboso has worked for Revoli for 14-15 years as an excavator. (Tr. 107) He has never been disciplined for safety violations. (Tr. 108)

According to Jose Raboso, the pipe he broke was approximately 9-10 feet from the gas line markings, and on the left side of the road. The marks were on the right side of the road. (Tr. 116-117) Before he started excavating on the left side of the street, he had no reason to believe that there was a gas main on that side because there were no markings. When the area was originally dug, they put a valve in that spot by a steel pipe. Therefore, he assumed that the white wire was part of that pipe because it was in the same area. Also, it looked like it had been cut with pliers or a saw because the cut was clean. (Tr. 119) If he had pulled it with his backhoe, it would have looked stretched, not clean cut. (Tr. 120)

Jose stopped to let his brother, Pedro, the laborer, determine the nature of the white wire. The laborer dug by hand and found that the white wire had been cut, so he pulled it to the side. At that point, the laborer found some sand in the hole, so he dug another two feet, until there was no sand left. The laborer told Jose that there was nothing there, so he came out of the hole and Jose Raboso resumed excavating. (Tr. 121) Jose Raboso denied ever uncovering either a yellow wire or yellow marking tape. Rather, he asserted that he saw only a white wire. (Tr. 109, 119) The wire was about two feet deep. (Tr. 121) Jose Raboso then moved a little, dug one more bucket and broke the pipe. (Tr. 122) When the pipe broke, he realized it was a gas line because of the noise. He automatically put his bucket in the hole, shut off the machine, walked to the side of the road and contacted his supervisor so he could call the appropriate authorities. (Tr. 109, 130-131) Jose Raboso testified that he didn't call the authorities himself because of his broken English. (Tr. 130-131)

Jose Raboso disputed whether Officer Driggs could have seen the yellow tape. He testified that the only way he could have seen it was when he found the white wire. He believed that the tape could only have come out of that section. (Tr. 110) Jose Raboso recalled that Officer Driggs was about 15 feet away from the excavation. (Tr. 123, Ex. CX-3) Jose Raboso opined that, at that distance, the officer could not have seen into a two foot deep trench to see the tape on the gas pipe. (Tr. 125) He denied ever telling the CO that he saw the pipe and sent in the laborer to expose more of it or that he decided to break it because it was not marked. (Tr. 127) According

¹ At various times, Jose Raboso was also referred to by the name "Dennis."

to Raboso, the only thing he said was that there was a pipe at the location of the white wire. (Tr. 127)

Moreover, there was adequate room for him to excavate without breaking the pipe. (Tr. 128) On those occasions when there is not enough room to dig around, he calls his supervisor to find out how to proceed. (Tr. 128-129) He waits for the gas company and does not rip out the pipe himself. (Tr. 129) He stated that it would be crazy for him to say that he would break a pipe on his own because it could shut down the project for the entire day. Because the gas company comes out quickly, there is no benefit for breaking a pipe. He pointed out that he has a license and knows that working around utilities is dangerous. (Tr. 128-130)

Jose Raboso indicated his knowledge of what color markings represent the various utilities. For example, gas is yellow, green is sewer, water is blue, and red is electricity. (Tr. 111) He also testified that the marks are made 18 inches on either side of the utility. (Tr. 111) Raboso testified that, in his work for Revoli, he works around utilities regularly and that about 75% of the time he finds unmarked utilities. (Tr. 115) Raboso testified that when he finds a pipe or tape he normally stops and asks the laborer to go into the excavation to see what it is. If it's something that's unmarked, he stops and calls the foreman. (Tr. 108) If he comes upon a marked utility and finds a pipe, he removes the asphalt from that section. He then asks the pipe layer or laborer to find the utility with a hand shovel.

He never uses the excavator to excavate within 18 inches on either side of a marking. Once he finds the pipe, he starts to undermine it, little by little, as the sand fails. If needed, he sends the pipe layer back into the hole to clear the top of the pipe so he can see it. Then he continues to dig, slowly undermining the pipe until there is enough room to install his pipe. (Tr. 112) He testified that it is part of the laborer's job to watch the hole as it is being dug to determine if anything is in it. If the excavator comes upon anything of which he is unsure, he asks the laborer to go into the hole and uncover it. If he doesn't know what it is, he treats it as live, leaves it alone and calls the foreman. He testified that he knows this procedure as the result of his training and knowledge received in his 14 years of experience. (Tr. 113-114)

In his time working for Revoli, he has never been cited by Public Utilities or OSHA for breaking an unmarked pipe. (Tr. 116)

Pedro Raboso

Pedro Raboso is a pipe layer/laborer for Respondent and the brother of Jose Raboso. Part of his job is to help ensure the safety of the excavator. He usually stands on the side of the excavator and watches the hole that is being dug. He also looks for utility markings on the road. Once he does that, he goes back and stands on the side of the trench to watch the operator dig. It is his job to make sure everything is safe behind the excavator. (Tr. 134-135)

Pedro Raboso testified that he learned his job by working with the excavators and at Revoli meetings. He testified that he attends tool box talks that are held every morning. Additionally, there are meetings throughout the year and other meetings where everyone is called to attend. (Tr. 135) Raboso testified that both he and his brother, Jose, attend these meetings, where they are addressed by a person who discusses safety, utilities and other such subjects. This person also comes to job sites to make sure that they are being safe. (Tr. 135) The instructor is an independent contractor and not a Revoli employee. (Tr. 136) Raboso testified that he also got training from Revoli employees, foremen and superintendents. (Tr. 136) Raboso further testified that about two and a half years ago, there was a training meeting at a high school in Chicopee, MA. attended by all the utility companies. The course involved markings, distances, etc. The entire Revoli company attended this meeting, as well as the Department of Public Utilities, and the Gas company. (Tr. 138-139) Because his native language is Portuguese, if there is anything said in these meetings that he does not understand, he asks another employee who speaks both English and Portuguese to explain it to him. Also, there are pictures which help him understand the subject matter. (Tr. 139)

Pedro Raboso testified that at the site of the accident, there were no gas markings in the immediate area where they were working. (Tr. 140) When his brother started excavating, he took out the first two buckets when his brother saw the wire and sent him into the hole to see what it was. When he went into the hole, he saw that the wire had been cut, apparently by a pair of pliers. (Tr. 141) He then saw the sand and started digging around it until there was no more sand and nothing in the hole. He never saw the pipe. (Tr. 141-142) He noted that there is usually a yellow wire around a gas pipe, but he saw only a white wire and yellow caution tape. (Tr. 143)

Paul Bunker

Paul Bunker is a Revoli supervisor with 31 years experience in the field. (Tr. 176) Bunker

testified that, as a supervisor for Revoli, it is his job to get a job started and oversee it from start to finish. (Tr. 145) It is his responsibility to call DigSafe. He testified that DigSafe has a 72-hour window, not including weekends or holidays. Thus, they will come to the site and mark the utilities within three days of being called. He testified that they also have a 24-hour window, which requires them to come out and mark a site for utilities within one day. (Tr. 145)

Bunker testified that after DigSafe marks a site, he looks at the street and location of the marks. He compares their markings to his contract to see if everything matches up and if there are any conflicts. (Tr. 146) He recalled that DigSafe was originally called on Oct. 20 and remarked the site on the Monday prior to the incident. (Tr. 146) Before the breaking of the gas line, he had no reason to believe that the gas line was not in the right place. The day before the incident, the marker for NStar Gas was on the street marking the road. NStar told Revoli that they had a new plastic gas main and that it was marked on the right side of the road. (Tr. 147-148) He was getting ready for a meeting when he got a call from the employees and was told that they broke a gas main. At first, he thought that they had been digging on the wrong side of the road. (Tr. 149) According to Bunker, after the accident, DigSafe came out to remark the utilities. These new markings, seen in Ex. CX-2, were again wrong and not within the expected 18 inches of the utility line.² (Tr. 151-153)

Bunker testified that, for the most part, Jose Raboso understands him. If there is a communication problem, he will call an employee who speaks both English and Portuguese. Nonetheless, there are times when they misunderstand each other. (Tr. 149) Because of this language problem, if there is something an employee doesn't understand, he will reinforce it to ensure that his intent is clear. (Tr. 150-151) He testified that approximately 30-35 employees speak Portuguese and that 8-10 require the use of a translator. He agreed that, when these 8-10 people attend training, they have to rely on their coworkers to explain what was said. (Tr. 175) However, he opined that, at these meetings, the language barrier was largely overcome because they use lots of pictures and videos which are self-explanatory. Also, his employee-translator sits with them. (Tr. 178-179) On the instant job, only two spoke broke English, but they had another employee who was able to act as a translator. (Tr. 174)

² Revoli unsuccessfully attempted to establish Bunker as an engineering expert. Respondent made an offer of proof that, if allowed to testify as an expert, Bunker would testify that Officer Driggs would have had to have been about four feet from the trench to see the wire in the trench. (Tr. 163-164)

According to Bunker, Revoli conducts more training than he can count. Every year, usually in February, before going back to work after winter, Revoli holds a company-wide training session that lasts 8-10 hours. Every employee is required to attend. It is a 10-hour OSHA refresher course. No employee who fails to attend that training is allowed to work. (Tr. 165) Bunker could not recall if the CO asked him about the 10-hour training course which is taught by an independent safety compliance officer. (Tr. 166)

Bunker was not at the Chicopee training course because he was out on a job in the field. Instead, he had his own separate course with his crew. (Tr. 166) Because he was not at Chicopee, he could not testify whether the Raboso brothers were in attendance. (Tr. 168) He recalled that back in March/April a course sponsored by the utilities was conducted at the Revoli offices. They used audio and video, and gave out booklets with DigSafe regulations and explained the meaning of the various colors used to mark the streets. (Tr. 169) He testified that Revoli employees are trained to work around utilities. If an employee sees a gas pipe, or knows the location of an unmarked gas pipe, they should never purposely break it. Rather, they should use total safety precautions. (Tr. 171-172)

Bunker further testified that he had not completed the OSHA 30-hour course. He took the 10-hour course, but agreed that it did not deal with excavation issues in any significant way. (Tr. 172-173) However, he has had the OSHA 40-hour refresher course, which covers things such as hazardous materials. (Tr. 175) Bunker has not administered any training above the level of tool box meetings. (Tr. 179)

DISCUSSION

Citation 1, Item 1

Citation 1, Item 1 alleges a serious violation of 29 C.F.R. §1926.21(b)(2)³ on the grounds that:

³ The standard provides:

§1926.21 **Safety training and education.**

* * *

(b) Employer responsibility.

* * *

(2) The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury

the employer did not instruct each employee in the recognition and avoidance of unsafe condition(s) and the regulation(s) applicable to his work environment to control or eliminate any hazard(s) or other exposure to illness or injury:

At the site: Employer had not instructed each employee in the recognition and avoidance of unsafe conditions when excavating near underground utilities.

The Secretary proposed a penalty of \$1750 for this alleged violation.

a. Background and Arguments

Respondent introduced several exhibits to establish that it properly trained its employees.

Ex. R-7 is an unsigned letter from the Department of Public Utility, predating the incident by approximately two years. The contents of the letter have been substantially excised, except for a paragraph stating that Revoli participated in a comprehensive DigSafe Law training session attended by nearly 50 Revoli employees. Ex. R-8 is a handwritten employee attendance sheet, hosted by the Bay State Gas Co., dated more than four months after the OSHA inspection. Finally, Ex. R-9 is a flyer for a course entitled “The Perfect Excavation” The flyer gives the following topic descriptions:

- Prepare your crew for a season of safe work around our growing underground infrastructure in Massachusetts;
- Learn to stay in compliance with the ‘Dig Safe’ law; and
- Topics include an overview of typical utility markings, procedures to work safely around underground facilities, and an open forum for Q & A.

Revoli also adduced testimony that its employees attended courses either sponsored by or attended by the utility companies where proper procedures for dealing with uncovered utilities were discussed. Pedro Raboso testified that, two and a half years earlier, he attended a meeting in Chicopee, MA, at a high school that was attended by all the utilities as well as the Department of Public Utilities. The course discussed many items including the nature of utility markings. (Tr. 138-139) Although he has trouble with English, if there was anything he did not understand, he would ask another employee who spoke both English and Portuguese who would explain it to him. (Tr. 139)

Supervisor Bunker could not say whether the Raboso brothers attended the training at Chicopee. (Tr. 168) He also testified that he and his crew did not attend the Chicopee course because they were away on another job in Fall River. However, he had a separate course with his crew at that location. (Tr. 166, 168) Bunker also testified that Revoli did more training than he

could count and that its employees were trained in working around utilities. (Tr. 165, 171) He noted that, before returning to work in the spring time, Revoli provides its employees with the OSHA 10-hour refresher course. Every employee is required to attend. (Tr. 165) He acknowledged that this course did not deal with excavation issues in any significant way. (Tr. 173) He also testified that employees attended a very extensive seven hour training course in March-April 2010 that was held at the Revoli offices. (TR. 166) The course included audio, video, and booklets containing all the DigSafe regulations, explained the colors used in the markings of the various utilities and included emergency numbers. (Tr. 169)

Supervisor Bunker also testified that approximately 30-35 of Revoli's employees speak Portuguese and about 8-10 of those require the use of a translator or other assistance. (Tr. 173-174) On this job, 4-5 required translation assistance. (Tr. 174) This included the Raboso brothers, who testified at the instant hearing with the help of a translator. Bunker testified that, whenever these 8-10 employees go to training they rely on their co-workers to explain what was said at the meeting. Nonetheless, in his opinion, the language barrier was not a problem at training sessions because there were a lot of pictures, videos and drawings which are self explanatory and make up for the language barrier. (Tr. 178-179)

The Secretary asserts that the evidence that Revoli introduced to demonstrate employee training was completely lacking in specificity. According to the Secretary, Revoli failed to submit any evidence of a company safety program, but rather relied on testimonial and documentary evidence that was vague as to employee attendance and content and chronologically irrelevant as to the instant gas rupture event.

The Secretary argues that when "this pallid training documentation" is considered with evidence that Revoli employees lacked proficiency in English, received training from English-only instructors and with the absence of any evidence that training materials were available in the employees' native language, "a finding that Revoli failed to comply with 1926.21(b)(2) is compelling." (Secretary's Brief at p. 12)

b. Discussion

To establish a violation of an OSHA standard, the Secretary must establish that: (1) the standard applies to the facts; (2) the employer failed to comply with the terms of that standard; (3) employees had access to the hazard covered by the standard, and (4) the employer could have known of the existence of the hazard with the exercise of reasonable diligence. *Atlantic*

Battery Co., 16 BNA OSHC 2131, 2138 (No. 90-1747, 1994). Moreover, to establish a violation of this training and education standard, the Secretary must establish that the employer failed to provide the instructions that a reasonably prudent employer would have given in the same circumstances. *E.g.*, *R & R Builders, Inc.*, 15 BNA OSHC 1383, 1390 (No. 88-282, 1991)(citing unpublished Sixth Circuit opinions); *A.P. O'Horo Co.*, 14 BNA OSHC 2004, 2008-2009 (No. 85-369, 1991).

It is undisputed that the cited standard is applicable to Respondent and that, if violated, the lack of proper instruction exposed the employees to the possibility of serious physical harm. However, Respondent asserts that its employees were properly instructed as required by the standard.

Although the evidence suggests that Revoli provided its employees with some level of training regarding the hazards involved when excavating around utility lines, the record fails to demonstrate that the training was sufficient to provide its employees with the requisite knowledge to avoid unsafe conditions when excavating around underground utilities. As the Secretary properly notes, the documentation provided by Revoli gave only the sketchiest of details regarding content, and did not even purport to establish that these courses were attended by Revoli employees. The only training that purportedly addressed those hazards was the Chicopee training conducted two and a half years earlier and a seven-hour course given at the Revoli offices in March-April 2010.

In both instances, the training was conducted in English. However, a substantial number of Revoli's employees spoke only broken English, including the Raboso brothers. Respondent's assertion that the language barrier was overcome by the availability of bilingual employees who would translate or explain things when an employee had trouble comprehending is not convincing. Neither is its assertion that the use of pictures, videos and drawings overcame the language barrier. Revoli introduced no evidence to establish that its method of dealing with the language barrier (i.e. having the employee determine when they need something explained to them) was adequate to ensure that the instruction was adequately conveyed. *See Modern Continental Constr. Co.*, 19 BNA OSHC 1760 (No. 00-1629, 2001), *aff'd* 305 F.3d 43 (1st Cir. 2002). Indeed, as discussed *infra*, events surrounding the severing of the gas line demonstrate that any training given to Revoli's employees failed to make the necessary impression upon the

Raboso brothers.⁴

Leaving it up to speakers of limited English to determine when they do not understand what is being taught assumes that (1) the employee will not misunderstand something he believes he understands; (2) the translator will not omit something important in the translation; and (3) no material will be missed while earlier matters are being translated and explained. Instructions must be "specific enough to advise employees of the hazards associated with their work and the ways to avoid them." *El Paso Crane & Rigging Co.*, 16 BNA OSHC 1419, 1425 nn. 6 & 7 (No. 90-1106, 1993). A reasonably diligent employer would ensure that the instructions were provided to its employees in a language they could clearly comprehend. Therefore, I find that the Secretary established by a preponderance of the evidence that Revoli failed to ensure that its instructions on the recognition and avoidance of unsafe conditions was conveyed in a manner fully comprehensible to its employees, in violation of the cited standard.

Section 17(j) of the Act, 29 U.S.C. § 666(j), requires that, in assessing penalties, the Commission must give "due consideration" to four criteria: the size of the employer's business, the gravity of the violation, the employer's good faith, and its prior history of violations. *Specialists of the South, Inc.*, 14 BNA OSHC 1910 (No. 89-2241, 1990). The Secretary proposed a penalty of \$1750 for this violation. The evidence establishes that the violation was serious. The failure to adequately train employees in the recognition and avoidance of unmarked underground utilities could, and indeed did, result in the severing of a gas line, creating the potential for an explosion that could cause death or serious physical harm to employees. The Secretary considered the violation to be of moderate gravity. Moreover, with 30 employees, the Secretary allowed a 40% reduction of the base penalty for size. She also allowed a 10% reduction for history,⁵ but no credit for good-faith (Ex. R-3). I find the Secretary properly considered the relevant statutory factors when assessing the penalty and that the proposed penalty is appropriate. Accordingly, a penalty of \$1750 is assessed for the violation.

⁴ Jose Raboso's insistence that he understood that, when encountering an unknown utility line, they should stop their work and contact their superintendent who would then proceed to contact the utility (Tr. 114-115, 129) was contradicted by their actions that, as discussed *infra*, resulted in the severing of the gas line.

⁵ The testimony of the CO establishes that, since 1986, Revoli has been inspected 37 times resulting in 23 citations. Since 2000, they were inspected 23 times with 9 citations. However, the record fails to disclose the nature of the citations, whether they were contested and, if so, the results of those contests.

Citation 2, Item 2

Citation 1, item 2 alleges a serious violation of 29 C.F.R. §1926.651(b)(3)⁶ on the grounds that:

When excavation operations approached the estimated location of underground installations, the exact locations of the installations was not determined by safe and acceptable means.

At the site: When excavation operations approached estimated location of underground utilities the exact location was not determined by a safe and acceptable means. A gas main was severed on 11/25/09 that resulted in release of gas.

The Secretary proposed a penalty of \$2500 for this alleged violation.

Revoli does not dispute that the standard applies to the instant facts and that, by severing the gas line, it ostensibly violated the standard. Moreover, there is no dispute that employees were exposed to the hazard covered by the standard. Revoli vigorously disputes, however, whether it knew or, with the exercise of reasonable diligence, could have known of the violation.

Revoli argues that it lacked the requisite knowledge on several grounds. First, it argues that the markings made by DigSafe that were supposed to indicate the location of utility lines were inaccurate and failed to properly mark the location of the gas lines. Because of the mismarking, its employees had no reason to suspect that there was a gas line in the location in which they were excavating. Furthermore, it denies that the backhoe operator had any warning that the gas line was located at his location and, accordingly, that it did everything possible to avoid the accidental severing of the gas line.

1. *Were the markings wrongly located?*

The evidence demonstrates that Revoli contacted DigSafe on October 28, 2009. (Ex. CX-1). Revoli superintendent Paul Bunker testified that, on the Monday prior to the incident, he

⁶ The standard provides:

§1926.651 **Specific excavation requirements.**

* * *

(b) Underground installations.

* * *

(3) When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.

contacted DigSafe to come to the site and remark the utilities. According to Bunker, this was necessary because they previously did not mark utility locations further on May Street where they intended to dig. (Tr. 146-147) The Secretary disputes whether Bunker contacted DigSafe on the Monday prior to the accident. She points out that that the NStar Gas report clearly indicates that the “marking of underground facilities were lost or not maintained and remarking was not requested at least twenty-four (24) hours before excavation began or continued.” (Ex. CX-2) Moreover, the Secretary argues that there is no hard documentary evidence to support Revoli’s assertion that it called DigSafe to remark the utility lines.

Regardless whether Revoli contacted DigSafe a second time, the relevant fact is that they contacted DigSafe and the utilities were marked within the required 30 days prior to commencement of the excavation. (Ex. CX-18, ¶ 99.04(1))

The Secretary also asserts that Revoli failed to establish that the markings on Pickering Street were inaccurate. She argues that the photos taken at the site (Exs. R-4A and 4B) were taken after the gas line ruptured and, therefore, do not constitute a fair and accurate representation of the conditions leading up to the gas line rupture. Similarly, Ex. R-4C is an undated photo and there is no way to know whether the markings it depicts are accurate. The Secretary further points out that the CO testified that, when he arrived to investigate the incident, the utility line markings on Pickering were obscured by excavation material in the road. (Tr. 61, 63)

Revoli’s witnesses testified that the lines were mismarked. (Tr. 117-118, 147-148, 152-153) Although the CO testified that the markings were obscured by excavation material, he also testified that, while not certain whether they were indicating gas lines, other markings were visible and were not in the location of the excavation. (Tr. 60) He also testified that the gas line markings away from the excavation may not have been wrong, because there could have been other gas lines under the pavement besides the one that was broken. (Tr. 67) In his experience, utility markings are not always accurate. (Tr. 43) It was the conclusion of the CO that the broken gas line was not marked. (Tr. 67)

The Secretary properly argues that Respondent’s photographic exhibits, taken after the fact, do not necessarily demonstrate the conditions at the time of the incident. However, the burden of establishing all elements of a violation is on the Secretary. Respondent not only introduced the photographs, but the testimony of the excavator and the foreman support the assertion that the

gas line was marked on the opposite side of the street. Even the CO testified that the gas line was mismarked. Indeed, the General Notes to the project plans clearly state that the “location of subsurface utilities shown is approximate and not guaranteed to be complete or accurate.” (Ex. CX-15) The Secretary, to the contrary has introduced no evidence to contradict the assertion that the lines were mismarked. Accordingly, I conclude that the preponderance of the evidence establishes that the broken gas line was not properly marked by the utility.

2. *Was the severing of the gas line unforeseeable*

Having established that the gas line was not properly marked, the issue here is whether Revoli knew or should have known that it had uncovered an unmarked gas line.

Excavator Jose Raboso and his brother, laborer Pedro Raboso, testified that, during the excavation they uncovered a white wire. Jose stopped his work and had Pedro enter the excavation to determine the nature of the wire. Pedro testified that he excavated by hand and found that the white wire had already been cut. He then pulled the wire to the side and noticed some sand in the hole.⁷ Pedro dug through the sand until there was none left. Finding nothing else in the excavation, Pedro got out of the hole and Jose resumed excavating in an area away from where the sand was located. On the third bucket, Jose severed the gas line. He shut down the excavator and got off the machine. (Tr. 109, 121-122, 141-142) Jose testified that he had no reason to believe that there were any gas lines on the side of the street he was working because the markings were on the opposite side of the street. (Tr. 118, 140)

Both Pedro and Jose Raboso denied that there was any yellow line or yellow warning tape in the excavation and insisted that there was only the white line that was already severed. (Tr. 119, 143) Indeed Jose Raboso explicitly denied telling the CO that he saw a yellow wire (Tr. 127) He insisted that the only way the officer could have seen yellow warning tape was on the first bucket where he found the white wire. (Tr. 110)

The brothers Raboso both testified that they knew that a yellow line indicated the presence of a gas line. (Tr. 111, 143) Jose also testified that when he comes across an unmarked line he stops and calls his foreman.⁸ (Tr. 108, 114) An unmarked line is always to be treated as live and

⁷ Sand usually indicates the presence of a line or wire since it is used to bed a line. (Tr. 41)

⁸ Jose Raboso also testified that when working around a marked utility, he never excavates within 18 inches of either side of the markings. Rather, he removes the asphalt and then stops the machine and asks the pipe layer to find the utility with a hand shovel. Once he finds the utility, he undermines the pipe a little bit as the sand fails. If needed, he sends the pipe layer back into the hole and clears the top of the pipe to make it more visible. Then he continues to dig, slowly undermining the pipe until he has enough room to insert the pipe he is to install. (Tr. 111-112)

never broken. (Tr. 114-115) He would never take it upon himself to rip the utility, but would wait for clearance from the gas company. (Tr. 129) He further testified that it would be of no benefit to take it upon himself to rip out a utility because the utility company comes immediately when called and, if he rips a live utility, it could shut down the job for the entire day. (Tr. 130)

The testimony of Pedro and Jose Raboso was contradicted by Officer Driggs. (Tr. 17) Officer Driggs testified that he saw Jose Raboso pull a bucket out of the excavation that revealed a yellow tracer wire. Officer Driggs, who has been a licensed excavator operator since 1979, testified that a yellow tracer wire usually indicates a gas main. In his experience, when you find a yellow tracer wire, you hand dig it, and never make any assumptions on it being live or dead, but rather contact the utility. (Tr. 20) He saw the laborer go into the hole with a shovel and then emerge. He also noticed a piece of yellow caution tape that NStar Gas usually puts above their lines as the bucket came out of the trench. (Tr. 26) At that point he began to walk away and was behind a tri-axle when he heard the purging of a gas main. (Tr. 18-19)

The CO testified that, although Jose Raboso never mentioned coming upon either a yellow tracer wire or yellow marking tape, he did indicate that they uncovered a gas line. (Tr. 38-39, 81-82) The CO was told by Jose Raboso that when he came upon the line, he ordered Pedro Raboso into the hole to further dig around. Because it was not in the marked location, the laborer assumed that it was an abandoned line, and gave his brother the signal to go ahead and sever the pipe. (Tr. 38-39, 83)

The CO further testified that Officer Driggs told him that he observed that the first bucket to come out of the excavation was pure sand, and that the second bucket contained the yellow tracer wire and yellow warning tape. At that point, Officer Driggs told him that the laborer entered the hole to uncover the pipe and determine whether it was live and that the next bucket severed the pipe. (Tr. 40-41. 58)

At the hearing, Respondent argued that Officer Driggs's observations were not reliable because when he allegedly observed the yellow tracer line and warning tape, he was somewhere between 15-20 feet from the bucket. (Tr. 24) Revoli argues that the officer was too far and at the wrong angle to enable him to see down into the trench and make his claimed observations.

Despite Respondent's contention that Officer Driggs was not in a position to enable him to observe inside the excavation, the photographic exhibits completely support the officer's

observations. Exhibits CX-9 & 14 both show both a yellow tracer wire and yellow warning tape in the excavation. (Tr. 29-30, 42) Even Revoli's photographic exhibits shows yellow tracer wire and yellow warning tape in the excavation. (Ex. R-4h) However, none of the exhibits show a white wire anywhere in the excavation. Moreover, the CO's recollection of his conversations with Officer Driggs was fully backed up by Officer Driggs's own testimony. On the other hand, the testimony of Jose and Pedro Raboso regarding what they told the CO was at odds with the CO's recollection. For example, the CO recalled that Jose Raboso told him that when they came upon the utility, because it was not in a marked location, it was assumed to be abandoned and they decided to sever it. (Tr. 39) In contrast, Jose testified that he sent his brother into the excavation when they came upon an already-severed white wire. After hand digging revealed nothing further, they assumed that nothing was there and continued excavating, which resulted in severing the gas line. (Tr. 109, 121-122)

I find the testimony of Officer Driggs to be completely credible. Not only is he a trained and experienced police officer, but he also had extensive experience in excavation observations which lends further credibility to his interpretation of events. Officer Driggs had no reason to be other than honest and truthful in his testimony. Indeed, the photographic exhibits fully support his version of the events.

Similarly, I find the CO's testimony to be credible. The CO's recollections of his interviews with Officer Driggs and Jose Raboso were coherent, forthright and supported by the photographic exhibits. I find no reason to conclude that the CO's recollection of his interview with Officer Driggs could be correct while his recollection of his interview with Jose Raboso could be so wrong.

On the other hand, I note that the Raboso brothers are native speakers of Portuguese and had some difficulty with English. While I can't discount the possibility that their testimony was somewhat distorted by the language barrier, the fact remains that their testimony regarding the events immediately preceding the incident finds no support in either the photographic exhibits, the observations of Officer Driggs or in the CO's recollection of his interview with the operator. Moreover, if the recollections of Officer Driggs and the CO were correct, the Raboso's were responsible for a serious incident caused by their violation of well-established industry protocols in that area of Massachusetts. On this record, I find that the Raboso brothers had significant motives for relating a story that changed or omitted certain uncomfortable facts. Accordingly, I

find that their testimony lacked credibility.

I find that the preponderance of the evidence establishes that the excavator saw the yellow tracer line, uncovered the gas line and severed it on the assumption that, being unmarked, it was abandoned. They did not call the foreman who, under accepted procedures, would have called the utility to determine that whether the gas line was live.

The record also establishes that Revoli knew, or with the exercise of reasonable diligence could have known of the violation. Pedro Raboso testified that they encounter unmarked utilities on approximately 75% of excavations. (Tr. 115) Clearly, the presence of an unmarked utility line was completely foreseeable. The Secretary makes out a *prima facie* case of the employer's awareness of a potentially preventable hazard upon the introduction of proof of the employer's failure to provide adequate safety equipment or to properly instruct its employees on necessary safety precautions. *Brock v. L.E. Myers Co., High Voltage Div.*, 818 F.2d 1270, 1277 (6th Cir. 1987); *Stahl Roofing Inc.*, 19 BNA OSHC 2179, 2181 (No. 00-1268, 2003) (consolidated). As discussed in item 1, *supra*, Revoli failed to ensure that its employees were adequately trained in the recognition and avoidance of hazards they were likely to encounter.

Having failed to adequately train its employees in this foreseeable hazard, Revoli is charged with knowledge of the violation. Accordingly, as charged in the citation, Revoli failed to determine “by safe and acceptable means” whether the line was live before severing it.

The Secretary proposes a \$2500 penalty for this violation. The violation is clearly serious. Severing a gas line could result in an explosion that could lead to death or serious physical harm. The record establishes that at least two employees were exposed to this violation.⁹ The Secretary found the violation to be of high gravity. As with Item 1, the Secretary gave Revoli a 40% credit for size, no credit for good faith, and a 10% credit for history. I find that the Secretary properly considered the statutory factors when assessing the penalty and that the proposed penalty is appropriate. Accordingly, the proposed penalty of \$2500 is assessed.

ORDER

Based on my findings of fact and conclusions of law set forth in this decision, it is ORDERED that:

⁹ I note that the Act makes no provision for considering the danger posed to the nonemployee public, i.e., school children, when assessing an appropriate penalty.

Citation 1, Item 1 for a violation of serious violation of 29 C.F.R. §1926.21(b)(2) is AFFIRMED and a penalty of \$1750 ASSESSED; and

Citation 1, Item 2 for a serious violation of 29 C.F.R. §1926.651(b)(3) is AFFIRMED and a penalty of \$2500 is ASSESSED.

SO ORDERED.

_____/s/_____

The Honorable John H. Schumacher
U.S. OSHRC Judge

Dated: 3/7/11

Washington, D.C.