United States of America
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
1120 20th Street, N.W., Ninth Floor
Washington, D.C. 20036-3457

SECRETARY OF LABOR, Complainant, v. APPLETON GRP, LLC, d/b/a Appleton Group, Respondent.	OSHRC Docket No. 16-0718

APPEARANCES:

For the Complainant:

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For the Respondent:

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BEFORE: William S. Coleman
Administrative Law Judge

DECISION AND ORDER

The Respondent, Appleton GRP, LLC, d/b/a Appleton Group (Appleton), operates a facility in East Granby, Connecticut, where it manufactures heating cable systems designed to prevent ice from forming on roofs and in pipes. (T. 11, 211). On January 28, 2016, an unidentified

person contacted the area office of the Occupational Health and Safety Administration (OSHA) located in Hartford, Connecticut, about the facility to complain (1) that emergency stops ("e-stops") on an extruding line were not functioning, and (2) that employees who tested heating cables were being exposed to electrical hazards. (T. 11-12).

In response to that complaint, an OSHA compliance safety and health officer (CO) from the Hartford area office inspected the facility on three separate days: February 2 & 4, 2016, and March 15, 2016. (T. 12, 63-64, 95, 99). On March 28, 2016, as a result of the inspection, OSHA issued a "Citation and Notification of Penalty" proposing penalties totaling $11,500 on two Citations: (1) a four-item "serious" citation (Citation 1), and (2) a two-item "other than serious" citation (Citation 2).

Appleton timely contested the Citations and proposed penalties and thereby brought the matter before the Occupational Safety and Health Review Commission (Commission) pursuant to section 10(c) of the Occupational Safety and Health Act of 1970 (Act). 29 U.S.C. § 659(c).

The Commission docketed the matter on May 6, 2016, and the Secretary thereafter filed his formal complaint pursuant to Commission Rule 34(a), 29 C.F.R. § 2200.34(a), wherein the Secretary re-alleged the violations and proposed penalties set forth in the original citations. The Commission's Chief Judge assigned the matter to the undersigned on September 12, 2016, for hearing and decision. The hearing was conducted in Hartford, Connecticut on February 15, 2017. Post-hearing briefing was completed on June 8, 2017.

The Secretary declared in his post-hearing brief that he was withdrawing item 1 of Citation 2.[1] *See Morrison-Knudsen Co.*, 16 BNA OSHC 1105, 1123 (No. 88-572, 1993) (recognizing that

[1] This withdrawn citation item had alleged an "other than serious" violation of 29 C.F.R. § 1910.37(b)(2), which requires that each exit be marked by a sign reading "Exit."

the Secretary had withdrawn a citation item through the position stated in a written brief). The following five alleged violations remain at issue, all of which were alleged to have occurred on or about the first day of the inspection, February 2, 2016:

Citation 1, Item 1: This citation item was amended prior to the hearing to allege a serious violation of section 5(a)(1) of the Occupational Safety and Health Act of 1970 (the Act), 29 U.S.C. § 654(a)(1), which is commonly known as the Act's "general duty clause." The Secretary alleges that Appleton violated section 5(a)(1) in that "the emergency stop provided on the main operating console [of the Davis-Standard Extruding Line 2] did not shut down the two Viteck pay-off units."[2] The Secretary alleges that as a result of this condition, employees were sometimes exposed to being struck by wire when shutting down a payoff unit by using the payoff unit's off switch. The Secretary alleges further that a feasible and acceptable method to correct the alleged hazard would be "to re-wire the emergency stop control provided on the operator's console to stop the pay-off units."

Citation 1, Item 2. This citation item alleges a serious violation of 29 C.F.R. § 1910.303(g)(1), which provides: "Sufficient access and working space shall be provided and maintained about all electric equipment to permit ready and safe operation and maintenance of such equipment." The Secretary alleges that Appleton violated the standard in that "a table that was being used as a workstation was located in the working space" for a 120/208 volt panelboard.

Citation 1, Item 3a. This citation item alleges a serious violation of 29 C.F.R. § 1910.333(a), which provides: "Safety related work practices shall be employed to prevent

[2] As originally issued, this citation item had alleged a violation of the machine guarding standard at 29 C.F.R. § 1910.212(a)(1). The amended citation item's description of the alleged violation of the general duty clause, which is quoted in the text, is identical to the description of the originally alleged violation of the machine guarding standard.

electric shock and other injuries from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized." The Secretary alleges that Appleton violated this standard with regard to employees who conducted "Hi-Pot testing on spools of cable using test sets" at two different testing locations at the facility.

Citation 1, Item 3b. This citation item alleges a serious violation of 29 C.F.R. § 1910.335(a)(1)(i), which provides: "Employees working in areas where there are potential electrical hazards shall be provided with, and shall use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed." The Secretary alleges that Appleton violated this standard in that employees who performed hi-pot electrical testing on spools of cable at three different testing areas of the facility were not provided personal protective equipment such as voltage-rated gloves and fire-resistive clothing.

Citation 2, Item 2. This citation item alleges an "other than serious" violation of 29 C.F.R. § 1910.110(c)(5)(i)(*i*), which provides in relevant part that containers used for storing liquefied petroleum gases "shall be located so as to minimize exposure to … physical damage." The Secretary alleges that Appleton violated this standard by storing a portable propane cylinder on a work bench in an unsupported "free-standing" position.

The issues for decision are:

- Did the Secretary prove by a preponderance of the evidence that Appleton or its industry recognized a hazard that was causing or was likely to cause death or serious physical harm when, during certain malfunction events, an employee was required to shut down a payoff unit by using the payoff unit's off switch? (Citation 1, item 1 – Section 5(a)(1)).
- Did the Secretary prove by a preponderance of the evidence that a work table that was located underneath a wall-mounted panelboard caused there to be insufficient access and working space to permit the ready and safe operation and maintenance of the panelboard? (Citation 1, item 2 -- § 1910.303(g)(1)).
- Did the Secretary prove by a preponderance of the evidence that the safety-related work practices Appleton used for testing insulated heating cables at two

test areas were not consistent with the nature and extent of the associated electrical hazards? (Citation 1, item 3a -- § 1910.333(a)).

- Did the Secretary prove by a preponderance of the evidence that the circumstances under which employees tested heating cables at three test areas was likely to give rise to potential electrical hazards requiring the wear of voltage-rated gloves and fire-resistive shirts? (Citation 1, item 3b -- § 1910.335(a)(1)(i)).
- Did the Secretary prove by a preponderance of the evidence that a portable propane cylinder that had been placed on a work bench in an unsupported upright position (a) was not located so as to minimize its exposure to physical damage, and (b) that Appleton knew or should have known that the cylinder had been located in that position? (Citation 2, item 2 -- § 1910.110(c)(5)(i)(i)).

As set forth below, the Secretary did not meet his burden of proof as to any of these issues, and thus the corresponding citation items are vacated.

FINDINGS OF FACT

The following facts were established by at least a preponderance of the evidence:

1. Appleton employs about 25 employees at its 32,000 square foot facility in East Granby, Connecticut, where it manufactures and tests heating cables that are used for roof-freeze and pipe-freeze protection systems. (T. 11-15, 27, 175, 210-11). Appleton is engaged in a business that affects interstate commerce. (Answer, ¶¶ 2 & 3).

Struck-by Hazard at Payoff Units
(*Citation 1, item 1 – General Duty Clause*)

2. Appleton's Davis-Standard Extruding Line number 2 ("DS-2") is the subject of the alleged violation of the general duty clause set forth in amended Citation 1, item 1. The DS-2 was placed in service at the facility in 1990. (T. 200).

3. The function of the DS-2 is to combine two bare copper wires to create a cable and then to coat that cable with plastic insulation.

4. The DS-2 has a linear configuration. The record does not reflect the length of the DS-2, but the entirety of the testimonial and photographic evidence suggests that it is at least 30 feet long from beginning to end. (T. 33-34). There are five discrete units to the DS-2 that are arranged from beginning to end in the following sequence:

a. The line starts with the "payoff," which is the location of the hazard alleged in the citation item. (T. 31). The payoff is comprised of two separate Viteck brand "payoff units," which Appleton designated respectively as "Payoff #1" and "Payoff #2." The two payoff units are oriented in line, with Payoff #1 positioned at the start of the line and Payoff #2 positioned next in line. A single bare wire from each payoff unit is "paid off" from a reel/spool of wire that is loaded onto each payoff unit. (Tr. 178). The photograph at Exhibit R-1-A accurately depicts a side view of the two Viteck payoff units, and the photograph at Exhibit J-1 accurately depicts an oblique view down the line, with Payoff #1 at the start of the line. Each payoff unit is powered by its own motor which rotates a reel of wire as it dispenses bare wire to the line. A control panel is mounted onto the housing for each payoff unit's motor, the vertical face of which is accurately depicted in Exhibit J-4. Each control panel has an on/off switch at the uppermost point on the vertical surface, and also has a separate run/stop switch at the lowermost point on the same vertical surface, as is accurately depicted on Exhibit J-4. When manipulated, either of these two switches will turn off the motor to the payoff unit. These two switches on the control panels for each payoff unit are circled and annotated with the handwritten word "Stop" on Exhibit R-1-A. (T. 181-83). The nine-second video clip at Exhibit R-2 accurately depicts one of the payoff units during normal operation, dispensing wire to the line. (T. 186-87).

b. The second unit of the DS-2 is the "accumulator," which is positioned immediately after Payoff #2, and which is accurately depicted in Exhibit J-5.[3] (T. 32-33). The two bare wires dispensed from the payoff units are pulled through the accumulator, whose function is to maintain the proper tension on the wires as they are combined to create a cable. (T. 31, 68, 179, 188; Exs. J-1 & J-2).

c. The third unit of DS-2 is the "extruder" itself, through which the cable is pulled and where it is coated with insulating plastic. (T. 188; Ex. J-5).

d. The fourth unit of DS-2 is the "capstan," which pulls the cable through the extrusion line.

e. The fifth and final unit of the extruding line is the "pickup reel," where the freshly insulated cable is wound onto a reel. (T. 178-179; 194).

5. From the time the DS-2 was put in service at the facility in 1990 up to the commencement of the inspection on February 2, 2016, in order to shut off electrical power to a payoff unit's motor for any reason, the operator of the DS-2 would have to manipulate one of the two switches located on the control panel for that payoff unit. (T. 181; Exs. J-4 & R-1-A). These switches are located on the operator's side of the motor housing for the payoff units, and the wire reel for that payoff unit is located on the opposite side of the motor housing. The straight-line distance between the switches and nearest point on the payoff reel (with the motor housing situated in between the two) is about 22 inches. (T. 183, 185; Ex. J-1).

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[3]A witness for Appleton described the DS-2 as being comprised of "four units." (T. 194). This witness described the accumulator as being located between the first unit (payoff units) and second unit (extruder) in the DS-2 line, but he did not expressly describe the accumulator as being a part of the extruder unit. (T. 188). For purposes of the description of the DS-2 in this decision, the accumulator is regarded to be a separate unit of the DS-2, rather than a part of the extruder unit. (T. 68).

6. The DS-2 has three emergency stops (e-stops). (T. 273).

a. One e-stop is located on the main console of the DS-2, which is more than ten feet from Payoff #2, and which is depicted in Exhibit J-3. (T. 189-90, 194). (This is the e-stop that the citation item alleges could be electrically connected to the payoff units in order to abate the alleged hazard.) The main console for the DS-2 is on the same side of the line as the control panels for each of the two payoff units.

b. Each of the other two e-stops is located near one of the payoff units, on the opposite side of the line from the side that the off switches for each payoff unit are located. The photograph at Exhibit J-2 accurately depicts the location of each of these two e-stops.

c. All three e-stops, including the two that are situated near a payoff unit, were wired to shut off electrical power only to the extruder and the capstan. None of the e-stops was wired to shut off electrical power to either of the payoff units. The manufacturer of the DS-2 designed and manufactured the three e-stops to function this way, and the e-stops had functioned in that manner at the facility since the DS-2 was first installed there in 1990. (T. 191, 196-201, 259-262).

7. From the time the DS-2 was put in service at the facility in 1990 up to the commencement of the inspection on February 2, 2016, when any of the three e-stops on the DS-2 was activated, the capstan immediately stopped pulling the cable though the extruder. (T. 274). When the capstan stopped pulling the cable, the capstan transmitted a signal to a limit switch on the accumulator, which in turn caused each payoff unit to stop dispensing wire. (T. 189-190). Thus, even though there was no electrical connection between any of the e-stops and the motors for the payoff units, the DS-2 was designed so that the activation of an e-stop should result in the reels of wire loaded onto the payoff units to stop rotating and thus stop dispensing wire to the line. (T. 37-40).

8. Similarly, the DS-2 was designed so that if wire that was being dispensed from the payoff units broke, the limit switch in the accumulator would signal the payoff units to stop dispensing wire. (T. 39-42). Sometimes, however, the limit switch on the accumulator would malfunction and fail to cause the payoff units to stop dispensing wire. (T. 39-42). When such a malfunction occurred, the wire reels on the payoff units continued to dispense wire, and the wire would unravel about a foot or so above the reel, with the unraveling wire "flying around to a degree" and resembling a "big Slinky" according to Mr. John Metz, who was the principal operator of the DS-2 from 2012 to 2016. (T. 46-47). The only way to cause the payoff units to stop dispensing wire during such a malfunction was for a worker to go to the control panel for each payoff unit and to turn off the motor for the payoff unit in order to stop the rotation of the wire reels (thereby stopping the resulting dispensing of the wire from the reel). (T. 38-43).

9. Mr. John Metz was the principal operator of the DS-2 for four years from 2012 to 2016. (T. 27, 30). Metz recalled experiencing the type of malfunction described in the preceding paragraph about six times over the course of the four years that he worked at the facility as the principal operator of the DS-2 line. (T. 45).

10. Metz recalled the unraveling wire from a payoff unit striking him when he accessed the stop switch for the payoff units, and he recalled sustaining a bruise on his arm from this contact, for which he did not seek or receive any medical treatment or first aid. (T. 55-56). Metz did not report having sustained this bruise to Appleton. (T. 49-50, 287-88).

11. Following an apparent malfunction of the limit switch in the accumulator in 2015, Metz complained to a supervisor about one of the payoff units creating a "wire mess," but Metz did not express a concern that this had presented a safety hazard. Metz also did not report having been struck or having sustained an injury. (T. 286-87). This was the only time that Metz reported

the malfunction that he had recalled having occurred multiple times over the four years that he had operated the DS-2 line.

12. Appleton was unable to replicate or to determine the cause of the apparent malfunction of the limit switch in the accumulator that caused the malfunction that Metz described. (T. 286-87).

13. No Appleton employee has ever reported to Appleton having been struck or injured from wire unreeling from the payoff units on the DS-2. (T. 288).

14. The director of operations at the facility had observed the payoff units in operation every day during the 17 years he has worked at the facility, and he has never seen, nor has he been informed of, any event where loose wire from a payoff unit struck anyone. (T. 195-96).

15. An employee named Roy McCarter, who has worked at the facility more than 28 years, and who is able to observe the DS-2 line from his work station a few feet away, has not witnessed an event such as described in ¶ 8, *supra*, in which wire unraveled from a payoff reel on the DS-2 in the manner that Metz described. (T. 278-80).

16. Sometime between February 2, 2016 and March 15, 2016, in a good faith effort to address the safety concerns expressed by the CO, Appleton caused all three e-stops on the DS-2 to be re-wired so that each e-stop shut off electrical power to the motors for the payoff units (in addition to power to the capstan and the extruder). (T. 202-03). After making this change, when any e-stop was activated the motors for the payoff units would stop, but the centrifugal force of the rotating reels would cause the reels to continue to rotate and dispense wire until such centrifugal force dissipated. (T. 202-03). This continued unspooling by centrifugal force resulted in greater time and effort being required to return the DS-2 to production after activation of an e-stop. (T. 204-205).

17. During the continuation of the inspection on March 15, 2016, the CO became aware that Appleton had rewired the three e-stops to become electrically connected to the payoff units. The CO regarded this rewiring to have abated the alleged violative condition. (T.99). Consequently, the original citation item, which had alleged a violation of the general machine guarding standard, indicated that the violation had been "Corrected During Inspection."

18. The task of shutting down either Payoff #1 or Payoff #2 on the DS-2 by using the off switches located on the control panel for each payoff unit during a malfunction when wire unspooled from the payoff reel did not present a risk of serious injury to the employee who manipulated the off switch during such an malfunction event.

19. Neither Appleton nor its industry recognized that the task of shutting down a payoff unit for the DS-2 by using the off switch on the control panel for each payoff unit presented a risk of serious injury to the worker who manipulated the off switch on the payoff units during a malfunction when wire unspooled from the payoff reel. (T. 196).

20. To the extent that unspooling wire from a payoff unit presented a hazard, such hazard was not likely to cause death or serious injury.

Sufficiency of Access and Working Space For Electrical Panel 10
(*Citation 1, item 2 -- § 1910.303(g)(1)*)

21. A 120/208-volt panelboard, identified as "Panel 10," was housed in a cabinet that was mounted on a wall in the facility. The cabinet was approximately 20 inches high, 12 inches wide, and 4.5 inches deep. (T. 13, 294). The cabinet had a dead front with a hinged door that opened to the switches on the panelboard. The cabinet itself was not energized and could become energized only in the event of some fault, short, or some kind of loose connection, although there was no evidence of any such events having occurred with respect to Panel 10 or any electrical cabinet in the facility, and no evidence regarding the incidence of such events anywhere. (T. 162-

63). The photograph at Exhibit J-11 accurately depicts the cabinet for Panel 10 with the cabinet door open. Appleton employees did not access Panel 10 on a regular basis. (T. 111).

22. A portable work table that was 60 inches long, 30 inches wide, and about 30 inches high was placed lengthwise flush against the wall and underneath Panel 10. The underside of the cabinet was about 18 inches above the tabletop. (T. 13; Ex. J-10). The tabletop's surface appears to have been plastic laminate glued onto particle board. The side edges of the particle board were covered by a rubber or plastic strip, as is depicted in Exhibit J-10. (T. 145, 158). The folding legs and the frame that supported the tabletop were metallic. (T. 145).

23. Some office materials (e.g., in/out boxes, three-ring binders, three-hole punch, and a calculator) were situated on the left side of the table, and a desktop-sized electrical testing device was situated on the right side of the table, as is depicted in the photograph at Exhibit J-10. (T. 207).

24. The switches on the panelboard were at about chest height for any normal-sized adult standing in front of the cabinet, as is depicted in the photograph at Exhibit R-5. Any adult of normal size and capabilities would have been able to reach the switches on the panelboard without having to stretch or strain while standing in any position within arm's reach of the switches. (T. 290-93).

25. A legend was affixed to the inside surface of the cabinet door that indicated the equipment or circuit that the corresponding switch on the panelboard controlled. The legend was printed in an oversized font that was readable to any person with normal vision who was within arm's reach of the switches on the panelboard. (Exs. J-11, R-5 & R-7). The legend was in template form in that its layout simulated the layout of the switches on the panel. (Ex. J-10; T. 293).

26. The presence of the worktable did not increase the risk of electrical shock to a person who made contact with the panelboard or the cabinet that housed it. (T. 206-07).

27. The location of the worktable below the panelboard allowed for sufficient access and working space to permit ready and safe operation and maintenance of the panelboard.

Safety-Related Work Practices and PPE in Certain Hi-Pot Test Areas
(*Citation 1, Items 3a and 3b -- §§ 1910.333(a) & 1910.335(a)(1)(i)*)

28. Item 3a of Citation 1 faults Appleton's safety-related work practices for the prevention of electric shock and other injuries in two hi-pot testing areas at the facility—one test area was identified as being "outside the lab," and the other test area was described as the "kit freeze" test area. For purposes of this decision, the testing area that is located outside the facility's lab is identified as Test Area 1 (TA-1) and the kit-freeze test area is identified as Test Area 2 (TA-2). The alleged deficiencies in TA-1 and TA-2 are alleged as two separate instances of the violation alleged in item 3a of Citation 1.

29. Item 3b of Citation 1 faults Appleton for not providing appropriate electrical protective equipment to employees who conducted hi-pot testing in TA-1 and TA-2, and also to employees who performed testing in a third hi-pot test area that is known as the "drum test" area, which for purposes of this decision is identified as Test Area 3 (TA-3). The alleged deficiencies in protective equipment provided to employees who conducted testing in these three areas are alleged as three separate instances of the violation alleged in item 3b.

30. "Hi-pot" is an abbreviation for "high potential." Hi-pot testing is also known as "dielectric testing." (Ex. R-8). In the hi-pot testing done at the facility, insulated heating cable is subjected to higher voltages than the cable would be subjected to while in use for its intended purpose as part of a heating cable system. The purpose of the testing is to determine the extent to

which voltage leaks from the cable and to determine whether the cable meets the specifications for which it is to be certified. (T. 78, 153-54, 240).

31. The testing equipment used in all three testing areas has insulated wire leads that are connected to the cable being tested. The ends of the wire leads have metal clips that are guarded by plastic insulating covers that prevent the person manipulating the leads from having direct contact with the conductive clips. (T. 213-14, 218-19; Exs. J-12). The insulating plastic covers on these leads are effective in preventing employees from inadvertently coming into direct contact with the conductive metal clips during the testing. (T. 219, 244). Appleton's work instruction for hi-pot testing directs employees not to touch the test leads during the actual testing when current is flowing through the test leads to the cable being tested. This is so even though contact with only the plastic insulated covers on the test leads would protect a person who made contact with only the plastic covers from electric shock or other injury. (T. 213-14, 218-19, 221; Ex. R-8).

32. No Appleton employee has sustained electric shock or other injury upon manipulating the conductive metal leads that are shielded by the insulating plastic covers. (T. 214). No Appleton employee has sustained electric shock or any injury upon conducting hi-pot testing at the facility at least since the year 2000. There is no evidence that in the years preceding the year 2000, any Appleton employee had sustained an electrical shock or any injury while conducting hi-pot testing at the facility. (T. 214-15).

33. All cable on which Appleton conducts hi-pot testing is protected by two layers of insulation and also by a tin-plated copper braided jacket, which serves as grounding. This construction of the insulated cable is such that it is not possible for electricity to pass outside the insulated cable, and a person cannot be shocked, electrocuted or burned from touching the insulated cable while it is energized during hi-pot testing. (T. 209-13, 245-48). When the

completed cable product is in actual use for its intended purpose of protecting roofs and pipes from freezing, the insulated cables are energized and do not pose a shock or burn hazard to anyone touching them while energized. (T. 210-12).

34. At the TA-1 test area, large spools of cable in lengths from 200 to 1000 feet are brought to the test area on a pallet that holds up to twelve reels of wire. The reels of wire remain on the pallet as each one is tested. (T. 215-16). The testing equipment at TA-1 is located on a small worktable that is situated against a wall in a corner. Although TA-1 is not cordoned off, and other employees walk past the test area from time to time, the area is not on a designated aisle or in an area with much foot-traffic. (T. 235-36, 242). The frequency of testing at TA-1 varied from once per week to once per month, depending on production. (T. 81).

35. At the time of the inspection, an employee named Lenny DeGray was the only employee who conducted testing at TA-1, and he had been doing so for years. (T. 217). DeGray is knowledgeable and skilled in conducting the testing at TA-1 in accordance with prescribed procedures, and he is not known ever to have deviated from those prescribed procedures. (T. 217-18, 220, 223-24; Exs. R-8, R-9).

36. The sequence for the testing in TA-1 was for the operator to remove about one inch of insulation from the end of the cable to be tested and then to clip the bus and grounding leads from the testing equipment to the cable. (T. 220-22; Ex. R-8). The operator would then turn on the testing equipment, whose output voltage when initially turned on would be zero. The operator would then gradually increase the voltage to between 1300 and 2200 volts, depending on the type of cable being tested, and would maintain that level for one minute. (T. 222-23, 226; Ex. R-8). After that minute elapsed, the operator would then turn off the testing equipment and detach the test leads from the cable being tested. (T. 216-17; Ex. R-8).

37. At the TA-2 test area, the reels of cable being tested are small and are placed on the same tabletop on which the testing equipment is located, as depicted in Exhibit J-12. (T. 95-96, 211, 215, 225). Testing in this area occurs every day. (T. 96). The employee conducting the testing connects the insulated test leads to the cable to be tested, connects the green-colored ground lead to the cable's braid, and then turns on the test equipment, which then delivers 2500 volts at zero amperage to the cable for one minute. (T. 97; Ex. R-10). The test equipment shuts off automatically after a minute has elapsed. (T. 95-97; Ex. R-10). Because the test leads at TA-2 transmit zero amperage, unsafe direct contact with the energized leads could cause a burn but not an electrical shock. (T. 137-39).

38. A single employee performs the testing that is conducted at TA-2, but two Appleton employees are authorized to conduct that testing. (T. 227-28). Both employees have been trained on the prescribed procedures for testing in this area. (T. 225-28; Exs. R-10, R-11, R-12). There is no evidence of either employee having ever failed to follow prescribed procedures.

39. Appleton met or exceeded the minimum training standards specified by § 1910.332 for employees who face the risk of electric shock.[4] (E.g., T. 173-74). Appleton employees who performed hi-pot testing had demonstrated they were capable of working safely on the energized circuits involved in their respective test areas and that they were familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding

[4] Section 1910.332 prescribes training requirements regarding safety-related work practices. The Secretary has not contended that Appleton did not provide this required training, and in the absence of any evidence to the contrary, Appleton is entitled to the presumption that it was in compliance with this training standard.

materials, and insulated tools, in the manner that is described in 29 C.F.R. § 1910.333(c)(2).[5] (T. 217-18, 220, 223-228; Exs. R-8, R-9, R-10, R-11, R-12).

40. The safety-related work practices in place at the TA-1 and TA-2 test areas were consistent with the nature and extent of the associated electrical hazards at those locations.

41. On February 2, 2016, employees who performed hi-pot testing on spools of cable at the TA-1, TA-2, and TA-3 test areas were not provided with voltage-rated gloves or fire-resistive shirts. (T. 14, 82, 88, 97, 244). Employees in all three areas wore safety glasses. (T. 82, 88, 120). Employees in TA-1 and TA-3 wore non-voltage rated cloth gloves (T. 88, 120), but there is no evidence whether employees who conducted testing at the TA-2 test area wore such gloves.

42. An employee named Joe Grundy performed hi-pot testing done at TA-3. Grundy was knowledgeable and skilled in conducting that testing, which he performed on average once every one to two weeks, depending on production. (T. 87, 235). Grundy is not known to have ever failed to perform the testing according to prescribed procedures. (T. 235).

43. Part of the testing done at TA-3 required the operator to insert the probes of a multimeter through the access ports of a box to cause the probes to contact copper terminals inside the box in order to measure the current that the testing equipment was delivering to the cable being tested. (T. 86, Ex. J-9 & R-14). Another aspect of the hi-pot testing at TA-3 required the operator to take heat measurements of the cable being tested by touching the cable being tested with a probe in order to test for consistency of the temperature of the cable while electric current was running

[5] Section 1910.333(c)(2) requires that employees who "work on electric circuit parts or equipment that have not been deenergized … shall be capable of working safely on energized circuits and shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools." The Secretary has not contended that any such Appleton employees did not possess these competencies and knowledge, and in the absence of any evidence to the contrary, Appleton is entitled to the presumption that it was in compliance with this standard.

through it. (T. 86-87, 231-32). Other aspects of the hi-pot testing in TA-3 involved connecting the cable to be tested to copper lugs in a box that was configured with a limit switch. The limit switch made it impossible for the box to be energized while the operator made this connection. (T. 140-45, 229-34). There are no uninsulated energized wires exposed during the hi-pot testing at TA-3.

44. The circumstances under which work is performed at the TA-1, TA-2, and TA-3 test areas does not give rise to the need for employees to wear voltage-rated gloves and fire-resistive shirts in order to protect them against potential electrical hazards.

Placement of Portable Propane Cylinder
(*Citation 2, item 2 -- § 1910.110(c)(5)(i)(i)*)

45. During her walkthrough on February 2, 2016, the CO observed a 14.1-ounce capacity propane cylinder (with an attached torch) on a workbench near the DS-2 extruding line. (T. 13). The cylinder was no more than 12 inches tall and its diameter was such that it could be easily grasped with one hand. The photograph at Exhibit J-6 accurately reflects the placement of the cylinder, showing the cylinder standing on its base and situated in between what appears to be a vice and what could be some kind of a press, both of which were bolted onto the top of the workbench.

46. No evidence was presented that it was reasonably possible for the cylinder to sustain physical damage simply by being toppled over on the table from its standing position onto its side.

47. If the cylinder had toppled over from its standing position onto its side, there was no apparent route available for it then to roll off the workbench and onto the floor. Rather, the equipment and material on the workbench would have arrested a rolling cylinder before it reached the edge of the workbench. (T. 251-53).

48. The placement of the propane cylinder on the worktable did not expose the cylinder to physical damage in that it was not reasonably possible that the cylinder would sustain damage by being toppled to its side from the position reflected in the photograph at Exhibit J-6, nor was it reasonably possible for the cylinder to roll off the workbench onto the floor if it were to have been toppled over on the workbench onto its side

49. No evidence was presented regarding the length of time the cylinder had been located in the position depicted in Exhibit J-6.

50. No evidence was presented to establish who placed the cylinder in that position or whether any manager or supervisor had actual knowledge of the placement of the cylinder in this position.

DISCUSSION

The Commission obtained jurisdiction of this matter under section 10(c) of the Act upon Appleton's timely contest of the citations and proposed penalties. 29 U.S.C. § 659(c). At all relevant times, Appleton was an employer covered by the Act because it met the Act's definition of "employer." 29 U.S.C. § 652(5).

The Act's general duty clause mandates that each employer "furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees." 29 U.S.C. § 654(a)(1). To establish a violation of the general duty clause, the Secretary must prove by a preponderance of the evidence that: (1) a condition or activity in the workplace presented a hazard; (2) the employer or its industry recognized the hazard; (3) the hazard was causing or likely to cause death or serious physical harm; and (4) a feasible and effective means existed to eliminate or

materially reduce the hazard. *Peacock Eng'g, Inc.*, 26 BNA OSHC 1588, 1589 (No. 11-2780, 2017).

To establish a violation of a workplace safety or health standard promulgated pursuant to section 5(a)(2) of the Act, the Secretary must prove by a preponderance of the evidence that: (1) the cited standard applies; (2) the terms of the standard were violated; (3) employees were exposed or had access to the violative condition; and (4) the employer knew, or with the exercise of reasonable diligence could have known, of the violative condition. *Atl. Battery Co.*, 16 BNA OSHC 2131, 2138 (No. 90-1747, 1994); *Astra Pharm. Prods*., 9 BNA OSHC 2126, 2129 (No. 78-6247, 1981), *aff'd in relevant part,* 681 F.2d 69 (1st Cir. 1982).

Struck-by Hazard at Payoff Units
(*Citation 1, Item 1 -- General Duty Clause*)

The CO recommended citing Appleton for a violation involving the payoff units "[b]ecause employees would need to approach an area with a hazard in order to turn off the payoff units in the event of a machine malfunction and could possibly be exposed to being struck by the wire, cut, bruised or puncture wounds." (T. 104-05). The amended citation item alleged that this hazardous condition existed because "the emergency stop provided on the main operating console [of the DS-2] did not shut down" the two pay-off units. The amended citation item alleged further that a feasible and acceptable method for correcting the alleged hazard was "to re-wire the emergency stop control provided on the operator's console to stop the pay-off units."

The evidence is insufficient to establish that Appleton (or the industry within which Appleton operated) recognized the hazard alleged—loose wire from the payoff units that was causing or was likely to cause death or serious physical harm when employees were required to shut off a payoff unit at the payoff unit's control panel during a malfunction.

In his case-in-chief, the Secretary presented the testimony of the principal operator of the DS-2 at the time of the inspection, John Metz. Metz's testimony is insufficiently weighty to establish that Appleton or its industry recognized the hazard alleged.

Metz's testimony regarding the number of times it was necessary for him to turn off the payoff units during malfunctions when wire was "flying around to a degree" was varying, inexact, uncorroborated by other evidence, and lacked any other indicia of reliability.[6] The variability of Metz's testimony on this important point raises significant doubts regarding the reliability of this aspect of his testimony and the reliability of his testimony as a whole.

Metz testified also that he told Appleton's maintenance manager, Richard Schulze, about these malfunction events each time they had happened. (T. 49). In contrast, Schulze testified for Appleton and recalled Metz making such a report only one time; Schulze noted further that Appleton had been unable to replicate or determine the cause of the sole malfunction event that Metz reported. (T. 49, 286-87). Further, the Appleton employee who operated the extruding line that was adjacent to DS-2 during the entire time that Metz was the principal operator of DS-2 (Roy McCarter), testified credibly that he did not recall having ever seen the DS-2 malfunction in the manner that Metz described, either when Metz was the operator of the DS-2, or at any other time over the more than 28 years that he has worked at the facility. (T. 278, 281). Schulze and McCarter provided more reliable and weightier testimony than Metz. The greater weight of the evidence is

[6] Metz's testimony regarding the frequency of the malfunctions was wildly disparate over the span of a mere two transcript pages. (T. 45-46). He first testified that during the four years that he was the principal operator of the DS-2 line, the malfunction had occurred "almost a half-dozen times, plus." But then moments later, he testified that it happened "once a couple of months" (in response to a leading question that suggested this very answer). And moments after that, he provided testimony that could be construed as suggesting that the malfunction occurred about every two weeks and sometimes occurred two or three times in a single day. (T. 45-46).

that Metz reported the malfunction that he described in his testimony to Appleton management only one time.

Metz's testimony about whether he had reported being struck by and injured by the wire when he turned off the payoff unit during a malfunction was somewhat ambiguous. (T. 55-56). He could reasonably be understood to have testified either (1) that he had reported to Schulze only that there had been a malfunction, or (2) he had reported to Schulze that there had been a malfunction *and* that he had been injured while attending to it. (T. 55-56). Weighed against Schulze's unambiguous and credible testimony that Metz had not reported being struck and injured by the wire, and the positive evidence that no Appleton employee had ever reported having been struck or injured by wire in the manner that Metz described (T. 288), Metz's ambiguous testimony is insufficient to support a finding that Metz had in actuality reported being struck by the wire and injured.

Metz testified also that he told Schulze that he was concerned about having "to get in harm's way" to shut off the payoff unit during the malfunctions (T. 50), but Schultz testified he recalled Metz complaining only one time of the resulting "mess" from a malfunction, and not expressing any safety concern. (T. 287). Given the absence of any evidence of other employees sustaining injuries at the Appleton facility in the manner that Metz described, Metz's testimony that he communicated a safety concern to the maintenance manager is insufficiently weighty to prove by a preponderance of the evidence that Metz actually did effectively communicate his apparent safety concern to Appleton management.

In sum, the weight of the evidence is insufficient to establish that Metz reported to Appleton management (or to anyone else) either (1) that a hazard existed involving loose wire from the payoff units, or (2) that he had been struck or injured by any such loose wire. Rather, the greater

weight of the evidence establishes that no Appleton employee had ever complained of such a struck-by hazard or reported to management having been struck or injured by wire in the manner that Metz described. (Finding of Fact ¶ 13, *supra*).

The evidence is also insufficient to establish that the industry within which Appleton operated recognized the hazard alleged. Metz testified that he had worked in the wire and cable industry for 38 years and that every place he had worked "had basically the same technology." (T. 34-35). He testified that the principal difference between the machinery at Appleton and the machinery at other facilities where he had been employed is that the e-stops at the other facilities "were functional." (T. 49). Metz recognized that the e-stop on DS-2's main console was not electrically connected to the payoff units, although it is unclear whether Metz correctly understood that this was how that e-stop was designed and manufactured to operate, or whether he held the erroneous belief that this was a defect in the e-stop. (T. 38). (The uncontroverted evidence is that none of the three e-stops were designed or manufactured to be electrically connected to the payoff units, as described in Finding of Fact ¶ 6, *supra*.) There is no evidence that Metz had operated Viteck brand equipment anywhere else (T. 55), and there is no evidence that the wiring of the e-stops at other facilities where Metz had been employed had been wired to payoff units for safety reasons. Given the variability of other testimony from Metz, and the absence of any corroboration of his testimony about the equipment at other facilities in the wire and cable industry, Metz's testimony is insufficient to establish that the wire and cable industry recognized the hazard alleged in the citation item.

Neither does the CO's testimony establish industry recognition of the alleged hazard. The CO testified that she had inspected facilities similar to Appleton's over the course of her career, and that in those inspections she had been cautioned to "to be mindful of the wire and the machine

operations, so that if wire breaks that I don't get hit." (T. 71). She was concerned that wire breaking "under tension" could result in the broken wire "whipping out" and "snapping or striking someone." (T. 73-74). Nothing in the record suggests that the CO had ever personally witnessed such an occurrence, or that anyone had ever reported such an occurrence to her, and the video of the payoff unit dispensing wire does not give rise to a reasonable inference that any such violent "whipping" or forceful "snapping" of the wire would occur if the wire coming off the payoff unit did break. (Ex. R-2). Moreover, under the scenario posited by the CO, the wire under tension would have broken and potentially "snapped" before the time that an employee would have had cause to approach the control panel for the payoff unit in order to shut it off. An employee approaching the control panel for the payoff unit after the wire had broken would in all likelihood be in a position to avoid contact with any wire that was "whipping" around or unspooling in the vicinity of the payoff unit's off switch.

The CO testified further that in the course of her inspections of other facilities in the wire and cable industry, that she recalled seeing records that indicated employees having sustained injuries from being struck by wire. (T. 106-07). This testimony regarding unspecified other facilities with unspecified other equipment and unspecified other injuries is far too general and imprecise to support a finding that the industry in which Appleton operated recognized a hazard involving loose wire from the payoff units.

The Secretary failed also to prove that being struck by loose wire from a payoff unit was causing or was likely to cause serious physical harm or death. The CO's testimony that she believed the loose wire could inflict eye injuries, puncture wounds, and lacerations was conclusory and uncorroborated, and insufficient to establish the alleged hazard was likely to cause such injuries. (T. 105).

The CO's belief that the loose wire could result in lacerations or puncture wounds is not substantiated by any other evidence. The evidence of record that depicts the speed with which the payoff units dispense wire, the gauge of the wire (Ex. R-2), and the distance and obstacles between the reels of wire and controls for the payoff unit (e.g., T. 47, 183), do not support the inference that any contact with the wire from a payoff unit was likely to cause a laceration or puncture wound.

As for potential eye injuries, there is no evidence that the operator of DS-2 was not required to wear safety glasses. Rather, the photograph at Exhibit J-1 indicates that Metz did in actuality wear eye protection when operating the DS-2 line. (T. 152). Moreover, there is substantial evidence that other employees in the facility were required to wear safety glasses as a matter of course. (T. 82, 88, 120). Given other safety measures in place at the facility, the CO's supposition that the alleged hazard of unspooling wire at the payoff unit was likely to cause an eye injury is not substantiated.

Metz's recollection that he had sustained a bruise on his arm as a result of being struck by the wire from the payoff unit is insufficiently weighty to establish by a preponderance of the evidence that this contact with the wire did in actuality cause any bruising, or that such contact was likely to inflict any bruising. On cross-examination by Appleton's attorney, Metz's initial response to a question about whether he had been injured by contact with the wire from the payoff was that he had sustained "just bumps and bruises," but upon further exploration of this initial response, he testified that he had simply been bruised on his arm. (T. 55-56). Even if Metz's testimony about being bruised is accepted at face value, such an injury generally does not constitute serious physical harm. *See Powell Constr. Co.*, 5 BNA OSHC 1740, 1742 (No. 14926, 1977) (stating that bruises and contusions do not support a classification of "serious"). Moreover, no

other aspect of Metz's testimony permits the reasonable inference that the contact with the wire that he described was likely to result in serious physical harm.

The Secretary has failed to prove by a preponderance of the evidence that unspooling wire at the payoff units presented a hazard recognized by Appleton or its industry, or that any hazard that such unspooling wire did in actuality present was causing or was likely to cause death or serious physical injury. *See Anoplate Corp.*, 12 BNA OSHC 1678, 1686 (No. 80-4109, 1986) (observing that Congress intended to limit application of general duty clause "to conditions that few could doubt are dangerous enough to warrant abatement").

The Secretary having failed to establish by a preponderance of the evidence essential elements of a violation of the general duty clause, Citation 1, item 1, must be vacated.

Sufficiency of Access and Working Space for Panel 10
(*Citation 1, item 2 -- § 1910.303(g)(1)*)

Citation 1, item 2 involves § 1910.303(g), which is included in the electrical subpart of the general industry standards that contains "design safety standards for electric utilization systems." *See* 29 C.F.R. § 1910.302. Section 1910.303(g) by its terms applies only "to electric equipment operating at 600 volts, nominal, or less to ground."

This citation item alleges that Appleton violated subparagraph (1) of section 1910.303(g), which provides as follows: "(1) *Space about electrical equipment*. Sufficient access and working space shall be provided and maintained about all electric equipment to permit ready and safe operation and maintenance of such equipment." The citation item alleges that Appleton violated this standard in the following manner: "[A] table that was being used as a workstation was located in the working space for Panel 10, a Square D 120/208 volt panelboard."

Section 1910.303(g)(1) constitutes a "performance" standard, in that it identifies an objective but does not specify the method or manner in which that objective is to be achieved.[7] *See Cent. Fla. Equip. Rentals, Inc.*, 25 BNA OSHC 2147, 2151 (No. 08-1656, 2016). "[B]ecause performance standards . . . do not identify specific obligations, they are interpreted in light of what is reasonable." *Id., quoting Thomas Indus. Coatings, Inc.*, 21 BNA OSHC 2283, 2287 (No. 97-1073, 2007).

Thus, in order to establish that Appleton violated section 1910.303(g)(1), the Secretary was required to prove that the placement of the table underneath Panel 10 did not reasonably provide for "[s]ufficient access and working space" about Panel 10 "to permit [its] ready and safe operation and maintenance." As set forth in the Findings of Fact ¶¶ 21-27, the evidence presented was insufficient to establish the facts that are essential to proving non-compliance with section 1910.303(g)(1).

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[7] Subparagraph (1) of section 1910.303(g) has seven subparagraphs, many of which have subparagraphs of their own. Included in some of these subparagraphs are some "specification" standards that specify minimum distances that must be maintained to provide for "sufficient access and working space" about certain equipment. For example, subparagraph (g)(1)(vii)(A)(*1*) requires that certain panelboards be located in a "dedicated space" that is "equal to the width and depth of the equipment and extending from the floor to a height of 1.83 m. (6.0 ft) above the equipment or to the structural ceiling, whichever is lower." Noncompliance with a specification standard such as subparagraph (g)(1)(vii)(A)(*1*) establishes the existence of a hazardous condition. *Joseph J. Stolar Constr. Co.*, 9 BNA OSHC 2020, 2024 n.9 (No. 78-2528, 1981) (noting that "when a standard prescribes specific means of enhancing employee safety, a hazard is presumed to exist if the terms of the standard are violated").

The issue adjudicated in this decision is whether the Secretary proved non-compliance with the performance standard set forth in subparagraph (g)(1) of section 1910.303. The question of whether another standard is applicable to the condition here is not adjudicated—that question has not been raised by either party and was not tried by consent, either expressed or implied. *Cf. Pa. Steel Foundry & Mach. Co.*, 12 BNA OSHC 2017, 2029 (No. 78-638, 1986) (declining to amend *sua sponte* a citation to allege an applicable specification machine guarding standard in lieu of the performance machine guarding standard that had been pleaded and tried).

The CO believed the placement of the worktable did not provide an employee who needed to access Panel 10 under emergency circumstances with "adequate space to approach the panel." (T. 109). She thought an employee might have to lean against the table to reach the switches on the panelboard, and also might have difficulty reading the legend for the panel to identify the appropriate switch, thereby potentially delaying responsive action in an emergency. (T. 109). The CO also believed that the presence of the table presented a shock hazard to a person who made contact with the panelboard or its cabinet, because that person might make also contact with the table's metallic legs or the metallic electric equipment placed on the table, and thereby create a path to ground that could result in an electric shock or electrocution. (T. 110-11, 159).

Mr. Shriram Pathak was Appleton's director of operations for heating cable systems and also the acting plant manager at the time of the inspection. He testified that he could not envision a scenario where a person manipulating the switches on the panelboard would be at risk of sustaining an electrical shock if such person were to simultaneously be in contact with the panelboard and either the table or the electrical testing equipment that was situated on the table. (T. 207). Further, Appleton presented substantial evidence that the presence of the table below the panelboard did not impede access to the panel and would not affect the speed with which a person could read and understand the legend and identify the appropriate switch on the panelboard. (T. 288-94; Exs. R-5, R-6 & R-7).

The CO's testimony constituted prima facie evidence to prove non-compliance with the performance standard, but Appleton rebutted the Secretary's prima facie case principally with Pathak's testimony.

The testimony of both the CO and Pathak on the issue constituted lay testimony, in that neither was offered or qualified to present expert testimony.[8] The undersigned, as the trier of fact, possesses no special knowledge or experience regarding the sufficiency of access and working space to permit the ready and safe operation and maintenance of electrical equipment, and there is little basis in the record for discerning the relative reliability of the testimony of one lay witness over the other on this issue. However, Pathak's greater formal education in electrical engineering, and his far greater knowledge and experience in the operations of the facility, weighs in favor of according his testimony more weight than the CO's, notwithstanding his obvious interest in having the East Granby facility determined to have been in compliance with OSHA standards.

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[8] The CO who inspected the facility, Ms. Jayne Hollows, has been employed by OSHA as a safety engineer for 27 years. She has an undergraduate degree in industrial engineering and operations research and has been a certified safety professional since 1994. She has conducted over 1,000 compliance inspections while at OSHA, most of which have included inspection of electrical issues. In the course of her career at OSHA, she has inspected about 10 other facilities similar to Appleton's East Granby facility, some of them multiple times. (T. 60-65).

Mr. Shriram Pathak has been employed at Appleton's East Granby facility since the year 2000, and since 2014 has been serving as the company's director of operations for heating cable systems as well as the acting plant manager. Pathak has undergraduate and masters degrees in chemical engineering. As part of his undergraduate studies, he took at least two semesters of electrical engineering courses, which included coverage of basic concepts and properties of electricity and protective measures when working around electricity. (T. 172-73). From 2000 to 2004, Pathak served as "senior development engineer," with responsibilities that included developing new products and supporting the manufacturing from an engineering perspective, including electrical testing of finished products. (T. 166-67). In 2004 he was promoted to engineering manager, and in that position he continued to perform his prior responsibilities as "senior development engineer" with additional managerial responsibilities, including management of the extrusion process of which the DS-2 extrusion line is a part. (T. 168). After four years as the engineering manager, Pathak was promoted in 2008 to plant manager of the East Granby facility, and in that capacity he was responsible for the operations of the entire facility. In 2014, he was promoted to his current position of director of operations for heating cable systems, but also continued to serve as the "acting" plant manager. (T. 169). In his current position, Pathak spends, on average, about 20% of his time on the floor of the facility. (T. 176). Pathak was present during the CO's inspection and he accompanied the CO during about 80% of the time that she was she was on the premises of the facility. (T. 176).

While the admission of appropriate expert testimony might well have provided a basis for according greater weight to the CO's conclusions over Pathak's on this issue, no such expert testimony was presented. *See Falcon Steel Co.*, 16 BNA OSHC 1179, 1191 (No. 89-2883, 1993) (consolidated) (noting that an "experienced compliance officer's reasonable suggestion" on a technical matter may be sufficient for the Secretary to make out a prima facie case without having to present expert testimony on the matter); *Consol. Constr., Inc.*, 16 BNA OSHC 1001, 1006 n. 6 (No. 89-2839, 1993) (noting that the Secretary was not required to present expert testimony to prove his case, but that "when the Secretary chooses not to produce an expert witness, he risks the possibility, as here, of not being able to refute the employer's evidence"); *Gen. Motors Corp., Delco Prod. Div.*, 11 BNA OSHC 1482, 1484 (No. 78-5476, 1983) (observing that "had the Secretary met his *prima facie* burden, it is questionable whether, without expert testimony, the Secretary's case would have been capable of withstanding rebuttal" from the respondent).

Even if equal weight were accorded the lay testimony of the CO and Pathak, the Secretary would have failed to meet his burden to prove by a preponderance of the evidence that the presence of the table created a shock hazard or impeded the ease and speed of access to Panel 10. *See Stanley Roofing Co., Inc.*, 21 BNA OSHC 1462, 1464 (No. 03-0997, 2006) (concluding that Secretary did not meet her burden of proof on a matter where the evidence was "essentially in equipoise"); *Schaffer v. Weast*, 546 U.S. 49, 56 (2005) (observing that the "burden of persuasion" answers "which party loses if the evidence is closely balanced").

The Secretary having failed to establish by a preponderance of the evidence that the placement of the worktable underneath Panel 10 caused there to be insufficient working space about Panel 10 to permit its ready and safe operation and maintenance, item 2 of Citation 1 must be vacated.

Safety-Related Work Practices in Hi-Pot Test Areas
(*Citation 1, item 3a, instances "a" & "b" -- § 1910.333(a)*)

Item 3a of Citation 1 alleges a serious violation of 29 C.F.R. § 1910.333(a), which provides:

> *General.* Safety related work practices shall be employed to prevent electric shock and other injuries from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized. The specific safety-related work practices shall be consistent with the nature and extent of the associated electrical hazards.

The Secretary alleged that Appleton violated this standard with respect to employees who conducted "Hi-Pot testing on spools of cable using test sets" in two areas (TA-1 and TA-2) in the following manner:

> The employer had not developed and implemented safe work procedures for high voltage testing stations. Safe work practices to protect employees from electric shock include, but are not limited to, provided insulated surfaces for the test equipment and for the employees to stand on, providing cut-out switches to disconnect test equipment from the power supply in case of an emergency and isolating the test sets and material being tested to guard against accidental contact.

The CO's testimony regarding the safe work practices to protect employees from electric shock that she believed were needed at TA-1 and TA-2 appear to pertain to "isolating the test sets and material being tested to guard against accidental contact" and "providing insulated surfaces for the test equipment." There was no testimony in support of the allegations that Appleton should have, but had failed, to provide either (1) "cut-out switches to disconnect test equipment from the power supply in case of an emergency," or (2) "providing insulated surfaces … for the employees to stand on."

The CO testified that she believed the TA-1 test area did not meet the cited standard because it was located in a "walking aisle" and "the configuration of the testing station exposed employees, both the person doing the test and employees that could be passing by, to the potential of electrical shock and burns." (T. 81-82, 114-15). She believed the "configuration" of TA-1 exposed employees to the potential of such injury because "the test unit, itself, was sitting on a metal table" and the "test unit and the reels of material were located next to the metal uprights of the rack system, and there was no shielding or protection to protect anyone from the material being tested." (T. 114-15).

The CO testified that she believed the TA-2 test area did not meet the cited standard because the employee conducting the testing could come into contact with the small spool of wire that was being tested, and that "if the employee made contact with the spool when it was under the test load, and made contact with a surface that could cause them to be grounded, then the voltage test load would want to seek ground" and "could cause a spark." (T. 115; *see also* T. 119).

In contrast, Appleton's director of operations for heating cable systems and acting plant manager, Mr. Shriram Pathak, testified about Appleton's safe work practices at TA-1 and TA-2, including the practices and written procedures respecting the "proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools," as are described in section 1910.333(c)(2) as elements of safety related work practices. Those elements are properly taken into account in assessing whether the safety related work practices in any given workplace are "consistent with the nature and extent of the associated electrical hazards" as required by the cited standard, section 1910.333(a). (T. 114; Ex. C-2). Pathak testified further about Appleton's training and evaluation records for the TA-1 and TA-2 test areas. He controverted the CO's description of the location of TA-1 as being in a "walking aisle" with

frequent foot traffic. (T. 235-36). Pathak believed that in view of the safety related work practices in place at the facility, and the protection provided by the insulation on the cables and by the testing equipment's insulated leads, it would not be possible for an employee to be shocked or burned by making contact with the cables or leads during testing. (T. 206-207).

To prove non-compliance with the standard, the Secretary was required to establish that Appleton's safety related work practices to prevent electric shock and other injuries at the TA-1 and TA-2 test stations were not "consistent with the nature and extent of the associated electrical hazards" present at those stations. Section 1910.333(a). The CO's testimony constituted prima facie evidence to prove non-compliance, but Appleton rebutted the Secretary's prima facie case with Pathak's testimony.[9]

As between these two lay witnesses, Pathak's testimony regarding the safety-related work practices employed at the facility was the weightier, in that he had greater education and training in the properties of electricity, and he had far greater familiarity with the work practices, systems and equipment in place at the facility. *See Conagra Flour Milling Co.*, 16 BNA OSHC 1137, 1141 (No. 88-1250, 1993) (noting that "[g]enerally speaking, where employees testify from their own knowledge and experience on matters that pertain to their specific work activities, their testimony

[9] As noted earlier, both the CO and Pathak provided lay testimony, as neither was offered or qualified to present expert testimony. The undersigned, as the trier of fact, possesses no special knowledge or experience in safety related work practices to prevent electric shock or other injuries, and there is little basis in the record for discerning the relative reliability of the testimony of one lay witness over the other on this issue. As with the evidence regarding the sufficiency of the workspace around Panel 10 discussed *supra*, the introduction of properly admitted expert testimony could conceivably have provided a foundation for according greater weight to the testimony of the CO over that of Pathak, but no such expert testimony was presented. *See Falcon Steel Co.*, 16 BNA OSHC at 1191; *Consol. Constr., Inc.*, 16 BNA OSHC at 1006 n.6; *Gen. Motors Corp., Delco Prod. Div.*, 11 BNA OSHC at 1484.

should be given greater weight than that of witnesses who do not have first-hand experience with the operation in question"), *rev'd on other grounds* 25 F.3d 653 (8th Cir. 1984).

And while the Act is intended to prevent the first accident, the positive evidence that there had been no electric shock or other injuries sustained by employees testing cable at the test stations since at least the year 2000 (and the absence of evidence that there had been any such incidents in the years before 2000), is corroborative of Appleton's evidence that the safety-related work practices at TA-1 and TA-2 were "consistent with the nature and extent of the associated electrical hazards" as section 1910.333(a) requires. *Cf. Conagra Flour*, 16 BNA OSHC at 1142 (upholding an employer's determination that certain personal protective equipment was not required, in part because "the absence of any injuries is consistent with a finding that a reasonable person, considering all the circumstances, would not perceive a sufficient likelihood of a hazard to warrant the use of personal protective equipment").

The Secretary cites to evidence that Appleton had a project in progress to improve safety at its testing stations. The Secretary suggests that the existence of this project is probative of whether the safety-related work practices at TA-1 and TA-2 met the cited standard. (Sec'y Brief, p. 8). This suggestion is rejected. There was no showing that the impetus for the improvement project was to meet the minimum regulatory requirements. *See Gen. Motors Corp., GM Parts Div.*, 11 BNA OSHC 2062, 2066 (No. 78-1443, 1984) (consolidated) (stating that an "employer's safety recommendations do not establish that such precautions were necessary in order to comply with a standard" and observing further that "[i]f employers are not to be dissuaded from taking precautions beyond the minimum regulatory requirements, they must be able to do so free from concern that their efforts will be relied on to establish their knowledge of an alleged hazard"), *aff'd*, 764 F.2d 32 (1st Cir. 1985).

For these reasons, greater weight is accorded to Pathak's testimony, and the Findings of Fact at ¶¶ 31-40, *supra*, respecting the safety related work practices at TA-1 and TA-2 are based on his weightier testimony. The Secretary has thus failed to meet his burden to prove by a preponderance of the evidence that the safety-related work practices employed at the TA-1 and TA-2 test stations were inadequate to prevent electric shock or other injuries given "the nature and extent of the associated electrical hazards" present at those stations. Item 3a of Citation 1 must therefore be vacated.

Electrical Protective Equipment
(*Citation 1, item 3b, instances "a," "b," & "c" -- § 1910.335(a)(1)(i)*)

Item 3b of Citation 1 alleges three instances (one instance each at TA-1, TA-2 and TA-3) of a violation of § 1910.335(a)(1)(i), which provides as follows:

> (a) *Use of protective equipment*—(1) *Personal protective equipment.* (i) Employees working in areas where there are potential electrical hazards shall be provided with, and shall use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed.
>
> NOTE: Personal protective equipment requirements are contained in subpart I of this part.

The citation item alleged that Appleton violated this standard because it did not require employees who conducted hi-pot testing at the three test areas to wear electrical protective equipment "such as, but not limited to, voltage-rated gloves and fire-resistive clothing."

Section 1910.335(a)(1)(i) is a broadly worded performance standard that applies to countless conditions and circumstances. The same is true of many other standards that prescribe the use of personal protective equipment (PPE). *See, e.g.* § 1910.132(a) (requiring the use of PPE "wherever it is necessary by reason of hazards … encountered in a manner capable of causing injury or impairment in the function of any part of the body").

"To establish the applicability of a PPE standard that, by its terms, applies only where a

hazard is present," Secretary must demonstrate that "there is a significant risk of harm and that the employer had actual knowledge of a need for protective equipment, or that a reasonable person familiar with the circumstances surrounding the hazardous condition, including any facts unique to the particular industry, would recognize a hazard requiring the use of PPE." *Wal-Mart Distrib. Ctr. No. 6016*, 25 BNA OSHC 1396, 1400-01 (No. 08-1292, 2015), *aff'd in part and vacated in part on other grounds*, 819 F.3d 200 (5th Cir. 2016); *see also Weirton Steel Corp.*, 20 BNA OSHC 1255 (No 98-0701, 2003) (applying § 1910.134(a)(2), which requires an employer to provide an employee a respirator that is "applicable and suitable for the purpose intended" when such a respirator "is necessary to protect the health" of the employee). "The Secretary must show more than the mere possibility of or a potential for injury." *Andrew Catapano Enters., Inc.*, 17 BNA OSHC 1776, 1783 (No. 90-0050, 1996) (consolidated). Rather, in order to establish that a potential hazard presents a "significant risk of harm," the Secretary must prove that the circumstances in the workplace are "likely to give rise to the alleged hazard" for which the PPE is needed. *See Pratt & Whitney Aircraft v. Donovan*, 715 F.2d 57, 63-67 (2d Cir. 1983).

The Secretary presented a prima facie case through the CO's testimony that the circumstances in the three test areas were likely to give rise to electrical hazards that required the use of voltage-rated gloves and a fire-resistive shirt, but the CO's lay testimony on this issue was rebutted by the lay testimony of Pathak.[10] As with the evidence regarding the sufficiency of the workspace about Panel 10, and the safety-related work practices for TA-1 and TA-2, no expert testimony was presented on whether voltage-rated gloves or fire-resistive shirts "were appropriate

[10]The CO made an oblique reference to a potential need for use of a face shield for an employee conducting testing at TA-3, but that testimony was not sufficiently developed to constitute substantial evidence that a hazard existed that would call for a face shield. (T. 121). Moreover, the Secretary has not argued in his closing brief that the cited standard requires the use of a face shield in that test area.

…. for the work to be performed" at the three test areas. Moreover, there was positive evidence that no employee conducting testing at the three test areas had sustained an electric shock or had otherwise been injured since the year 2000, and there was no evidence that any such incidents had occurred before that year. *See Armour Food*, 14 BNA OSHC 1817, 1820 (No. 86-247, 1990) (noting that "the evidence that no employee had been injured while sharpening the blades in over 20 years strongly suggests that no hazard was present"); *Conagra Flour*, 16 BNA OSHC at 1141.

For the same reasons described previously in assessing the relative weight to accord the lay testimony of the CO and Pathak, greater weight is accorded to Pathak's testimony with regard to the need for voltage-rated gloves and fire-resistive shirts in the three test areas. Pathak's testimony was grounded in many years of experience in the industry and at the facility. Further, his testimony is consistent with affirmative evidence that no employees have sustained electric shock or other injuries while conducting testing at any of the three test areas. The findings of fact at ¶¶ 31-44 *supra* are based largely on Pathak's more persuasive testimony.

The Secretary having failed to prove that the circumstances under which employees tested heating cables in the TA-1, TA-2, and TA-3 test areas were likely to give rise to potential electrical hazards requiring the wear of voltage-rated gloves and fire-resistive shirts, item 3b of Citation 1 must be vacated.

Placement of Portable Propane Cylinder
(*Citation 2, item 2 -- § 1910.110(c)(5)(i)(i)*)

Item 2 of Citation 2 alleges an "other than serious" violation of 29 C.F.R. § 1910.110(c)(5)(i)(i), which provides in relevant part that containers used for storing liquefied petroleum gases "shall be located so as to minimize exposure to … physical damage." The Secretary alleges that Appleton violated this standard by storing a portable propane cylinder, with

an attached torch, on a workbench in an unsupported "freestanding" position. The CO was concerned that the cylinder "could be knocked over or possibly fall to the floor." (T. 77).

As detailed in ¶¶ 45-50 of the Findings of Fact, *supra*, the Secretary failed to establish by the greater weight of the evidence that the portable cylinder was at reasonable risk of sustaining physical damage if it had been knocked onto its side from its standing position on the table. The cylinder was lightweight and capable of being held by one hand. There is no substantial evidence that would support a reasonable inference that it was possible for the cylinder to sustain physical damage simply by being knocked onto its side on the tabletop. Further, the evidence fails to establish that if the cylinder were tipped over to it side that it could then roll off the workbench onto the floor. The Secretary having failed to prove that the cylinder was at reasonable risk of sustaining physical damage as a consequence of its placement as reflected in the photograph at Exhibit J-6, the evidence is insufficient to establish that Appleton failed to comply with the cited standard.

Further, the Secretary has failed to prove that Appleton knew, or with the exercise of reasonable diligence could have known, of the alleged violative condition. There is no evidence that any Appleton managerial employee had actual knowledge of the alleged violative condition before the CO brought it to Appleton's attention. In order to prove the violation, therefore, the Secretary had to prove that Appleton had constructive knowledge of the violative condition.

To prove constructive knowledge, the Secretary must show that Appleton's failure to discover the alleged violative condition was due to a lack of reasonable diligence. An employer can "be charged with constructive knowledge of conditions that could be detected through an inspection or examination of the worksite." *Texas A.C.A., Inc.*, 17 BNA OSHC 1048, 1050 (No. 91–3467, 1995). "Where the employer maintains an adequate inspection program, the burden is

on the Secretary to demonstrate that the employer's failure to discover the violative condition was due to a lack of reasonable diligence." *Trinity Marine Nashville, Inc.*, 19 BNA OSHC 1015, 1017 (No. 98-0144, 2000), *rev'd on other grounds,* 275 F.3d 423 (5th Cir. 2001). Whether an employer should have discovered a violative condition that is plainly visible requires consideration of how long the violative condition existed. *Thos. Indus. Coatings, Inc.*, 23 BNA OSHC 2082, 2086 (No. 06-1542, 2012) (ruling that the absence of evidence of how long a violative condition existed precludes finding that the employer could have known of the condition with the exercise of reasonable diligence.)

The evidence is insufficient to support a finding that in the exercise of reasonable diligence, Appleton could have known of the alleged violative condition. There is no evidence respecting how long the propane cylinder had been in the position observed by the CO on February 2, 2016, or the circumstances under which it had been put there. *Cf. Major Constr.,* 20 BNA OSHC 2109 (No. 99-0943, 2005) (concluding that where there was no evidence of how long the violative condition existed, Commission is unable to evaluate whether the employer could have known of the condition if it had been reasonably diligent). While the whole of the evidence might support a reasonable inference that Appleton could have known of the violative condition in the exercise of reasonable diligence, such evidence is not preponderant.

Accordingly, citation 2, item 2 must be vacated because the evidence is insufficient to establish either that Appleton failed to comply with the cited standard or that Appleton had actual or constructive knowledge of the alleged violative condition.

ORDER

The foregoing decision constitutes findings of fact and conclusions of law in accordance with Federal Rule of Civil Procedure 52(a). If any finding is in actuality a conclusion of law or any legal conclusion stated is in actuality a finding of fact, it shall be deemed so, any label to the contrary notwithstanding. Based upon the foregoing findings of fact and conclusions of law, it is ORDERED that:

1. Citation 1, item 1, alleging a violation of the 29 U.S.C. § 654(a), having not been proven, is VACATED.

2. Citation 1, item 2, alleging a serious violation of 29 C.F.R. § 1910.303(g)(1), having not been proven, is VACATED.

3. Citation 1, item 3a, alleging two instances of a serious violation of 29 C.F.R. § 1910.333(a), having not been proven, is VACATED.

4. Citation 1, item 3b, alleging three instances of a serious violation of 29 C.F.R. § 1910.335(a)(1)(i), having not been proven, is VACATED.

5. Citation 2, item 1, alleging an other than serious violation of 29 C.F.R. § 1910.37(b)(2), having been withdrawn by the Secretary, is VACATED.

6. Citation 2, item 2, alleging an other than serious violation of 29 C.F.R. § 1910.110(c)(5)(i)(i), having not been proven, is VACATED.

/s/ William S. Coleman
WILLIAM S. COLEMAN
Administrative Law Judge

Dated: June 12, 2018