Stewart Electric Co., Inc. (Stewart Electric) is an electrical contractor in Huntsville, Alabama. In the early morning of December 13, 2012, a crew leader electrician and a helper were severely burned from an arc flash when the crew leader began replacing a circuit breaker inside an energized 480-volt main panel at an automobile dealership in Florence, Alabama. After reading a newspaper account of the incident, a compliance officer (CO) with the Occupational Safety and Health Administration (OSHA) initiated an inspection on December 20, 2012. As a result of the OSHA inspection, Stewart Electric received a citation on April 22, 2013, alleging two serious violations of OSHA’s electrical standards at 29 C.F.R. § 1910.335, Safeguards for Personal Protection. Stewart Electric timely contested the citation.

The citation alleges serious violations of 29 C.F.R. § 1910.335(a)(1)(i) (item 1) by failing to provide the employee working on the energized 480-volt main panel with personal protective equipment (PPE) and 29 C.F.R. § 1910.335(a)(2)(i) (item 2) for employees’ failure to use
insulated tools for the work on the circuit breakers inside the energized 480-volt main panel. The citation proposes a penalty of $4,900.00 for each alleged serious violation.

The hearing was held on August 27, 2012, in Muscle Shoals, Alabama. The parties have stipulated to jurisdiction and coverage (Tr. 7-8). Post-hearing briefs were filed by the parties on November 15, 2013.

Stewart Electric denies the alleged violations and argues the record fails to show that it knew or should have known with reasonable diligence the crew leader and helper were working inside an energized main panel. Stewart Electric cites the recent Eleventh Circuit decision in Comtran Group Inc. v. U.S. Department of Labor, 722 F.3d 1304 (11th Cir. July 24, 2013) which requires the Secretary to show that the unsafe conduct of a supervisory employee was reasonably foreseeable before the supervisor’s knowledge is imputed to the employer. Stewart Electric claims that it had instructed and trained the crew leader to de-energize the electrical equipment before performing the circuit breaker work and not to work inside the energized (“hot”) panel. If knowledge is imputed, Stewart Electric asserts unpreventable employee misconduct.

For the reasons discussed, the alleged violations are vacated and no penalties are assessed.

THE ACCIDENT

Stewart Electric, with an office in Huntsville, Alabama, is an electrical contractor for commercial and industrial projects. Mr. Larry K. Stewart is the owner and president of the company and also acts as the project manager on certain jobs. Stewart Electric employs 70 employees and has been in business since 1976 (Tr. 301-302, 353-354, 357-358).

In November 2012 Stewart Electric began a project to completely re-wire the Bentley Chevrolet/Cadillac dealership which was being remodeled, in Florence, Alabama (Tr. 127, 185, 356). Stewart Electric assigned a crew under the supervision of a crew leader (foreman) electrician to perform the re-wiring work. The work included adding a circuit breaker and replacing a circuit breaker inside the dealership’s main electrical panel (Tr. 308-309, 373).

On December 13, 2012, the crew leader and a helper (jouneymen electrician) began the work to install/replace circuit breakers inside the main panel at approximately 5:30 a.m. (Tr. 100, 201, 224). The panel was located inside a room, approximately 7 feet wide by 15 feet long, in the main dealership building (Tr. 439). The electrical panel was described as 480 volts, three-phase, 800 amps (Tr. 31). The circuit breakers inside the panel were protected from accidental contact
by a metal front cover and a panel cover (Tr. 195-197). To perform the circuit breaker work, the main panel was not de-energized. The parties agree that the only way to de-energize the panel was to notify the utility company to turn the power off at a utility pole outside the dealership (Tr. 260). A flash bag brought to the dealership by the crew leader and containing protective pants, jackets, gloves, and helmets with tinted shields was left unopened and not worn by either employee (Exh. R-3a; Tr. 34, 43). The crew leader also had a non-insulated metal screwdriver with a rubber handle (Exh. C-5, pp. 1-6; Tr. 205).

While the helper was preparing the new circuit breaker for installation on the floor approximately 3-feet from the panel, the crew leader opened the panel cover and, using the screwdriver, began work on replacing a circuit breaker (Exh. C-5, p. 7; Tr. 196, 202, 212). There is no dispute that once the crew leader started to work inside the panel, an arc flash incident occurred which burned both employees and required them to be flown to a hospital in Birmingham, Alabama (Tr. 335, 339).

The helper, who had received burns on his hands and arms, returned to work on January 20, 2013 (Tr. 215-216). The crew leader, who had received 2nd and 3rd degree burns on his face and chest and had lost several teeth, also was able to return to work (Tr. 34-35). Before returning to work, both employees had to take the OSHA 10 hour training course. Also, because of the incident, the crew leader received a written warning and was demoted from the crew leader position (Exh. R-14; Tr. 307, 441).

On December 20, 2012, after reading a newspaper account of the incident, the CO initiated an inspection of Stewart Electric’s work at the dealership’s main electrical panel (Exhs. C-1, C-2; Tr. 26-27). He visited the dealership and observed the new panel which Stewart Electric had installed after the incident (Exh. C-5, p. 18; Tr. 338). The CO also interviewed Mr. Stewart and the company’s safety consultant (Tr. 28). He later visited Stewart Electric’s Huntsville office and observed the old electrical panel and the contents of the flash bag (Tr. 51-52). The CO also interviewed the two employees involved in the incident.

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1 It is noted that the CO has a loss of hearing problem (Tr. 11). He generally wears hearing aids. He could not remember if he was wearing the hearing aids during the Stewart Electric inspection (Tr. 80).
As a result of the OSHA inspection, Stewart Electric was issued the serious citation at issue on April 22, 2013. OSHA agrees that if the circuit had been de-energized, resistant PPE and insulated tools were not required for the employees (Tr. 81).

DISCUSSION

As the complainant, the Secretary has the burden of proof. In order to prove a violation of an occupational safety or health standard, the Secretary must establish:

(a) the applicability of the cited standard, (b) the employer’s noncompliance with the standard’s terms, (c) employee access to the violative conditions, and (d) the employer’s actual or constructive knowledge of the violation (i.e., the employer either knew, or with the exercise of reasonable diligence could have known, of the violative conditions). Atlantic Battery Co., 16 BNA OSHC 2131, 2138 (No. 90-1747, 1994).

Stewart Electric does not dispute the application of the cited electrical standards to its circuit breaker work at the dealership because the electrical panel remained energized. The Secretary agrees that the cited standards are not applicable if the panel had been de-energized (Secretary Brief, p. 18). Also, there is no dispute the employees were not wearing the provided PPE and the crew leader was using a non-insulated screwdriver when he worked inside the energized panel.

The issue in dispute is whether Stewart Electric knew, or should have known, with reasonable diligence that (1) the crew leader failed to de-energize the electrical panel before starting the circuit breaker work, or (2) the employees’ failure to use the appropriate PPE and insulated tools when the crew leader worked inside the energized panel.

Item 1 - Alleged Violation of § 1910.335(a)(1)(i)

The citation alleges that “On or about 12/13/2012, at the above referenced work site, an employee working on an energized 480 volt panel was not provided with fire resistant personal protective equipment. As a result, severe burns were received during an arc flash incident.”

Section 1910.335(a)(1)(i) 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.\(^2\)

There is no dispute that the panel was energized when the crew leader began replacing the circuit breaker. Also, Stewart Electric does not dispute that neither employee was wearing the PPE contained in the flash bag which they brought to the dealership. The flash bag remained unopened. By not wearing the PPE, the crew leader was exposed to an electrical arc flash hazard by working inside the energized panel (Tr. 203).

There is no dispute the flash bag was provided by Stewart Electric. The record establishes that the flash bag on site at the time of the accident contained two sets of PPE. Despite the CO’s misunderstanding that the bag contained only one set of PPE, four Stewart Electric witnesses (warehouse manager, owner/project manager, field manager who packed the flash bag after having the crew leader try on the PPE the night before the incident, and safety consultant who showed the contents of the bag to the CO), testified that the orange flash bag used by Stewart Electric was packed with two protective suits, two helmets and tinted shields, and two pairs of rubber gloves used for work on energized parts (Exh. C-5, pp. 32-33, 35; Tr. 284-287, 341, 375, 378-379, 415-416, 421-422, 424). There were two sets of PPE; one for the crew leader and one for the helper (Tr. 383).

Although the PPE was not used by either employee, Stewart Electric provided the PPE and it was available for their use at the dealership at the time of the incident (Tr. 47, 56, 228). Unlike the crew leader who was trained and tried on the PPE, there is no showing the helper was trained or tried on the PPE (Exh. C-2).

The basis for the Secretary’s citation, however, is not established. By its wording, the citation allegation is limited to Stewart Electric’s failure to provide the PPE. The Secretary’s argument that since there was no arc hazard analysis performed by Stewart Electric, no determination as to adequacy of the PPE could be established is rejected. The Secretary concedes that there is no requirement in the OSHA standards for an employer to perform an arc hazard analysis (Tr. 169). According to OSHA’s expert, the OSHA “regulations simply say that the employer must determine the hazard and protect the employee properly from the hazard”

\(^2\) The “Note” to the standard provides that “Personal protective equipment requirements are contained in subpart I of this part.” Subpart I, § 1910.132 et seq. identifies the required protective equipment such as proper protective coats, pants, insulated gloves, and face shields with tinted visors. Section 1910.137.
Stewart Electric’s safety consultant testified that the flash bags with the PPE were selected and purchased based on a matrix which was developed by the NFPA (Tr. 437). Even the Secretary’s expert conceded that the PPE was “possibly and probably effective” to prevent injuries sustained by the employees (Tr. 172). He was unable to testify what PPE should have been provided or evaluate the sufficiency of the PPE which Stewart Electric actually provided (Tr. 159, 164-165). The Secretary failed to show the PPE was inadequate.

The issue of employer’s knowledge is addressed later.

**Item 2 - Alleged Violation of § 1910.335(a)(2)(i)**

The citation alleges that “On or about 12/13/2012, at the above referenced work site, employees working on an energized 480 volt panel were not provided with insulated tools. As a result, two employees were severely burned from the resulting arc flash incident.”

Section 1910.335(a)(2)(i) provides:

> When working near exposed energized conductors or circuit parts, each employee shall use insulated tools or handling equipment if the tools or handling equipment might make contact with such conductors or parts. If the insulating capability of insulated tools or handling equipment is subject to damage, the insulating material shall be protected.

According to Stewart Electric, electricians are expected to provide their own tools such as screwdrivers in accordance with industry practice (Tr. 228. 303, 343). The parties agree the screwdriver was non-insulated (Tr. 227-228). Stewart Electric does not dispute that the crew leader was using a non-insulated screwdriver on December 13, 2012, and that the two employees were exposed to an arc flash hazard by the use of a non-insulated screwdriver inside the energized main panel (Tr. 57-58). The screwdriver had a long metal shaft and a rubber handle (Exh. C-5, pp. 1-6; Tr. 205). The screwdriver was used by the crew leader (Exh. C-2). There is no showing that the helper had or used non-insulated tools while working near the energized panel.

The violation is established as to the crew leader if knowledge is imputed to Stewart Electric. The issue of employer knowledge which is in dispute is addressed next.

**Stewart Electric’s Lack of Knowledge**

Stewart Electric claims that it did not know or have reason to know (1) that the crew leader intended to replace the circuit breakers without de-energizing the main panel, or (2) that the crew
leader failed to use the provided PPE and insulated screwdriver if he intended to perform the work “hot.”

In order to establish employer knowledge of a violative condition, the Secretary must show that the employer knew, or with the exercise of reasonable diligence could have known of a hazardous condition. *Dun Par Engd Form Co.*, 12 BNA OSHC 1962, 1965-66 (No. 82-928, 1986). An employer is required to make a reasonable effort to anticipate the particular hazards to which its employees may be exposed during the course of their scheduled work. *Automatic Sprinkler Corporation of America*, 8 BNA OSHC 1384, 1387 (No 76-5089, 1980).

The Eleventh Circuit in *Comtran Group Inc. v. U.S. Department of Labor*, 722 F.3d 1304 (11th Cir. July 24, 2013) and in accordance with decisions in the Third, Fourth, Fifth, and Tenth Circuits, recently held that to establish an employer’s knowledge where a supervisor such as the crew leader in this case was noncompliant, the Secretary must show either the employer’s actual knowledge, or by its constructive knowledge based on establishing, under the circumstances of the case, that the employer should have foreseen the unsafe conduct of the supervisor. If the supervisor is involved in the unsafe activity, his knowledge is not imputed to the employer unless the Secretary can show his conduct was foreseeable.

The record in this case lacks sufficient evidence to establish that Stewart Electric had actual or constructive knowledge that the crew leader intended to perform the circuit breaker work inside an energized main panel. The crew leader had worked for Stewart Electric on and off since the early 1990’s. His most recent employment began in June 2012 when he was rehired and promoted to crew leader. The dealership re-wiring project was his first job as the crew leader (Tr. 304, 355). There is no dispute that he was a supervisory employee (Tr. 100, 181-182, 223, 373).

Also, the crew leader’s knowledge of the helper’s failure to wear the PPE is not imputed to Stewart Electric. There is no showing that the helper’s job required him to work inside the

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3 Stewart Electric’s office and site of the accident are located in the State of Alabama which is within the Eleventh Circuit. Where it is highly probable that a Commission decision would be appealed to a particular circuit, the Commission has generally applied the precedent of that circuit in deciding the case - even though it may differ from the Commission’s precedent. *Interstate Brands Corp.*, 20 BNA OSHC 1102, 1104 n.7 (No. 00-1077, 2003), *pet for rev* filed No. 03-2791 (3rd Cir, June 19, 2003); *Farrens Tree Surgeon Inc.*, 15 BNA OSHC 1793, 1794-95 (No. 90-998, 1992).
energized panel. When the arc flash incident occurred, the helper was approximately 3 feet away from the panel (Exh. R-3; Tr. 212). According to the CO, the helper was not working on the panel; he was there to hand tools to the crew leader (Tr. 100). Also, there is no evidence the helper owned or used the non-insulated screwdriver on the energized panel.

Mr. Stewart, who was the project manager on the dealership re-wiring work, testified that he was never informed the crew leader intended to work the job “hot” (Tr. 327). On the contrary, Mr. Stewart testified that in three separate conversations with the crew leader about the circuit breaker work, he specifically instructed the crew leader to notify the utility company and make sure the panel was de-energized (Tr. 314-315, 325-327, 335-336). He had no expectation that the circuit breaker project required PPE or insulated tools (Tr. 332).

Mr. Stewart’s first conversation with the crew leader occurred at the start of the project. He recalled instructing the crew leader “that one breaker had to be replaced with a smaller one and a new one had to be added and that it would need to be de-energized when we did it” (Tr. 309). He directed the crew leader to call the electrical inspector or the power company to de-energize the panel (Tr. 311). Mr. Stewart’s second conversation occurred a couple of weeks before the incident when he advised the crew leader that the main panel needed to be de-energized for the circuit breaker work early in the morning when the dealership would not have to be shut down while the power was off (Tr. 309). His third discussion occurred a few days before the accident when Mr. Stewart met the crew leader in front of the electrical panel to discuss how the breakers would be changed (Exh. C-7; Tr. 309-310). The helper, who was also present, heard Mr. Stewart tell the crew leader that he did not want him to work inside the panel “hot” (Tr. 194).

Another helper electrician who had worked with the crew leader a few days before the accident testified the crew leader had told him that despite Mr. Stewart’s instruction to call the utility company to turn off the power to the panel, he did not feel it was necessary (Exh. R-5; Tr. 237). In his ten years as an electrician for several employers, he recalled that no employers had allowed “hot work” (Tr. 246).

The crew leader’s choice to work the panel “hot” also contradicted the instruction he received the night before the incident from the field superintendent who told him not to work the job “hot” and that “you need to get it turned off” (Tr. 364, 373). The superintendent testified that when the crew leader mentioned changing circuit breakers “hot,” he instructed him to have the
power turned off and not to work “hot.” However, in case it needed to be done “hot,” the superintendent as a caution, made sure PPE was available and made the crew leader even try on the PPE (Exh. C-6; Tr. 373-374). The crew leader was provided a flash bag containing two sets of fire resistant pants, jackets, leather and rubber gloves and helmets with face shields for use by the crew leader and the helper. The CO agreed that all employees interviewed during his inspection stated that the crew leader was instructed the day before the accident to de-energize the main panel (Tr. 97).

The Secretary offered no reason why the panel could not have been de-energized that morning except the possible disruption to the dealership’s business (Tr. 321). Although the dealership opened at 8:00 a.m., the service center, which was powered through the main panel, opened at 7:00 a.m. (Tr. 352). The record indicates that replacing a circuit breaker and adding a circuit breaker takes less than 15 minutes and the incident occurred at approximately 7:00 a.m. (Tr. 352). However, the crew leader and helper arrived at the dealership at approximately 5:30 a.m. (Tr. 201). The record fails to show why the work could not have started earlier. Also, according to Mr. Stewart, there was no deadline by the general contractor or the dealership when the circuit breaker work was to be done. To avoid any disruption to the business, the work could be done early in the morning, late in the evening, Saturday afternoon, or Sunday (Tr. 342).

Also, performing work on energized parts contradicted Stewart Electric’s Safety Manual which repeatedly states that the company’s general practice is not work a job “hot” unless absolutely necessary (Exh. C-8, p. 13; Tr. 289-290). The manual includes the declaration that “this policy has been established to ensure that electrical work on energized parts is performed only when necessary and every alternative means to carry out de-energized work has been considered and eliminated…. Under the “Hot Work” section, the manual provides in bold lettering that “At Stewart Electric, we have a **NO HOT WORK POLICY**.” Under the policy, hot work is only performed after the Operations Manager, Safety Director, and Facility conclude that the equipment cannot be de-energized and a hot work permit issued. None of these steps were followed by the crew leader.

The company’s general practice to not perform “hot” work is supported by the testimony of the helper, a former employee, the warehouse manager, the senior superintendent, and the safety consultant. Their testimony shows that there has only been one prior incident of Stewart Electric
working a project “hot” in the past decade (Tr. 187-188, 246, 255, 269, 287, 307, 419). Its invoices show that Stewart Electric has in the past contacted utility companies to turn off the power (Exh. R-10; Tr. 322-323). According to the CO, it only costs $35.00 to disconnect the electric power at the pole outside the dealership (Tr. 112).

Although the helper was aware the crew leader intended to work the panel “hot” for several days before the incident, his knowledge is not imputed to Stewart Electric (Tr. 216). He was not a supervisory employee. Despite knowing that working “hot” was unsafe, the helper did not inform the company of the crew leader’s intention. He did not think he should go over the crew leader’s head; it was not the “correct protocol” (Tr. 217, 226). He had had only worked for Stewart Electric for about two months before the incident (Tr. 221).

Similarly, the field superintendent’s insistence on having the crew leader take the flash bag to the dealership and try on the PPE does not undermine his specific instruction to have the power turned off and not work the panel “hot” (Tr. 373-374, 376). His behavior shows the superintendent’s cautious nature but does not establish constructive knowledge that the crew leader would disregard his instruction and work the panel “hot.” The unforeseeability of the crew leader’s conduct is shown also by his failure to even open the flash bag which contained the PPE despite knowing the specific dangers of arc flash (Tr. 203, 310).

According to Mr. Stewart, an arc hazard analysis was not necessary for the circuit breaker work because the job was intended to be performed inside a de-energized panel (Tr. 324-325). The CO acknowledged that Mr. Stewart had visited the jobsite to discuss the hazards of installing the circuit breakers and had instructed that the power be turned off. If de-energized, the employees would not have needed resistant PPE but only normal PPE such as gloves, glasses and non-insulated tools (Tr. 152-153, 165). An arc flash hazard analysis is not required by OSHA. OSHA requires the employer to determine the potential hazard and to adequately protect the employees from the hazard (Tr. 168). The Secretary’s expert agrees that the preferred method of changing a circuit breaker was to de-energize the panel (Tr. 148). He did not know if the PPE on site was suitable for the arc flash hazard but believed it was “possible and probably effective” to prevent the injuries sustained by the employees (Tr. 170, 172).

According to the CO, the crew leader stated during his interview that he had worked on “hot” jobs all the time (Tr. 90). The crew leader did not testify and his statement to the CO is not
supported by the record. He was the only employee to so claim (Tr. 90). The helper had never worked on a “hot” job for Stewart Electric or any other electrical contractor (Tr. 188). Regardless, the helper remembered Mr. Stewart specifically instructing the crew leader not to work on the panel “hot” (Tr. 194).

The record does not show why the crew leader failed to de-energize the panel before starting the circuit breaker work or wear the available PPE if he intended to work “hot.” Stewart Electric lacked knowledge of the crew leader’s poor choices. The crew leader has been an electrician for more than 20 years and has worked for Stewart Electric off and on for over 10 years without apparent problem.

Since it is found that Stewart Electric lacked knowledge, actual or constructive, of the crew leader’s failure to de-energize the main panel or use the PPE in the flash bag and a non-insulated screwdriver, the alleged violations of 29 C.F.R. § 1910.335(a)(1)(i) and § 1910.335(a)(2)(i) are not established. Because the alleged violations are vacated, there is no reason to discuss Stewart Electric’s unpreventable misconduct defense.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The foregoing decision constitutes the findings of fact and conclusions of law in accordance with Rule 52(a) of the Federal Rules of Civil Procedure.

ORDER

Based upon the foregoing decision, it is ORDERED that:

1. Citation No. 1, item 1, alleging a serious violation of § 1910.335(a)(1)(i), is vacated and no penalty is assessed.

2. Citation No. 1, item 2, alleging a serious violation of § 1910.335(a)(2)(i), is vacated and no penalty is assessed.

/s/
KEN S. WELSCH
Judge

Date: December 17, 2013
Atlanta, Georgia