

Secretary of Labor,	:	
Complainant,	:	
	:	
v.	:	OSHRC Docket No. 01-0174
	:	
Trinity Marine Products, Inc.,	:	
Respondent.	:	

Appearances:

Joseph B. Lockett, Esquire
Office of the Solicitor
U. S. Department of Labor
Nashville, Tennessee
For Complainant

Robert E. Rader, Jr., Esquire
Rader & Campbell
Dallas, Texas
For Respondent

Before: Administrative Law Judge Stephen J. Simko, Jr.

DECISION AND ORDER

Trinity Marine Products, Inc. (Trinity), is a corporation engaged in the manufacturer of river barges. The Occupational Safety and Health Administration (OSHA) conducted an investigation and inspection of respondent’s facility in Ashland City, Tennessee, from July 28, 2000, through November 29, 2000. As a result of this inspection, respondent was issued two citations. Respondent filed a timely notice contesting these citations and proposed penalties. A hearing was held in Nashville, Tennessee, on September 25, 2001, through September 27, 2001. During the hearing the Secretary withdrew Citation No. 1, item 3. Subsequent to the hearing, the Secretary filed a motion to amend Citation No. 1, item 1, to allege a willful violation. That motion was denied.

For the reasons that follow, Citation No. 1, items 1 and 2, and Citation No. 2, item 1, are vacated.

Background

On Friday, June 30, 2000, Armand “J. R.” Provencher, a Trinity employee, was tack welding angle iron ribs to the large sheet of steel that would eventually be the “rake” or bow of a barge. Provencher was working with James Fitts, a fitter. Fitts lined up the angle iron ribs and held them in position while Provencher tack welded them to the sheet of steel.

The welding that Provencher was doing is known as “stick” welding because it uses a welding rod. One end of the rod is clamped into the alligator jaws of the welding rod holder. The rod holder is connected by a cable, or “welding lead,” to a welding machine. The welding machine generates and regulates the electrical current that flows through the welding lead and through the rod holder into the rod and causes the rod to melt when it contacts the steel being welded. The melting rod results in the seam, or “bead,” that holds two pieces of steel together.

On the morning of June 30, 2000, Provencher initially had some difficulty getting a good bead to do his tack welds. Fitts checked two or three tacks done by the welding rod holder that Provencher was using. Fitts did not observe anything defective with the holder.

Later that morning, Fitts observed that Provencher was sweating a lot, dripping water onto the steel plate. He asked Provencher if he was all right. Provencher was tack welding strips of angle iron to a large sheet of steel laying on the concrete floor. Provencher had to bend over, kneel, or squat to make the tack welds. Shortly after Fitts asked Provencher if he was all right, Provencher stood up, grabbing himself as he came up holding the energized or “hot” welding rod holder. He fell onto his back with both arms crossed and the welding rod holder underneath his arms, tight against his chest. Fitts asked, “What’s wrong with you?” Provencher responded, “I’m electrocuted.”

Fitts called for help and at the same time attempted to pull the welding rod holder away from Provencher’s body by pulling on the welding lead. Another employee, Travis Taylor, ran over and the two of them began pulling on the welding lead in order to get the holder away. However, the rod holder was clenched tightly in the hand next to Provencher’s chest, and that arm was crossed by Provencher’s other arm, making it difficult to pull it loose. Fitts and Taylor jerked on the cable violently five or six times and actually pulled Provencher off the ground

before they were able to get the rod holder loose. When it finally did come loose, Travis Taylor just threw it over his head. Provencher was rushed to the hospital and died later that day. As a result of this incident, OSHA began its investigation on July 28, 2000.

Discussion

The Secretary has the burden of proving violations of standards promulgated under the Act.

In order to establish a violation of an occupational safety or health standard, the Secretary has the burden of proving: (1) 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).

Citation No. 1, Item 1

Alleged Serious Violation of 29 C.F.R. § 1915.56(a)(2)

The Secretary in Citation No. 1, item 1, alleges that:

Current carrying parts passing through the portion of the electrode holder which the arc welder or cutter grips in his hand and the outer surfaces of the jaws of the holder were not fully insulated against the maximum voltage encountered to ground:

- a) employees were not protected from contacting uninsulated metal parts of the welding rod holder during welding operations for the rake bottom on June 30, 2000.

It is undisputed that the standard applies to the working conditions at respondent's shipyard. The threshold question is whether Trinity failed to comply with the terms of the standard.

The standard at 29 C.F.R. § 1915.56(a)(2) provides:

- (2) Any current carrying parts passing through the portion of the holder which the arc welder or cutter grips in his hand, and the

outer surfaces of the jaws of the holder, shall be fully insulated against the maximum voltage encountered to ground.

Prior to the incident that resulted in his death, Trinity's employee, Armand Provencher, was tack welding, using a welding rod holder, or stinger, connected to an electrical welding machine. This was Mr. Provencher's first day on the job actually performing work as a welder. Shortly before the incident, James Fitts, an experienced fitter, checked and used the same welding rod holder used by Provencher. He found no defects. Trinity's employees are instructed to inspect tools before use and are trained not to use damaged tools. During the electric shock incident, Fitts and Travis Taylor, another Trinity employee, attempted to pull the welding rod holder away from Provencher. When the rod holder was finally dislodged, Taylor threw it over his head. This work area consisted of a steel plate laying on concrete. After the incident, the screw that holds the rod holder insulation in place was found on the steel plate. A broken piece of the insulator was also found in the area of the metal deck. All the evidence presented in this case indicates that damage to the rod holder occurred when Taylor pulled the rod holder from Provencher's chest and threw it over his head. The missing insulator screw and broken piece of insulator found in the immediate area are evidence that the welding rod holder was damaged during the attempt by fellow employees to save Mr. Provencher. The Secretary presented no evidence to show that the welding rod holder was damaged in any manner prior to the incident.

Mr. Provencher was tack welding at the time of the incident. This is evidence that the welding rod was in place in the rod holder. The welding rod holder was against his chest when he was electrocuted. The rod itself is energized during the tack welding operation and can shock an individual even if the rod holder is fully insulated and undamaged. The fact that Mr. Provencher received a fatal electrical shock is not evidence that the rod holder was damaged or otherwise not fully insulated. It is, however, evidence that the employee contacted some energized part. The logical inference is that part was the welding rod.

The Secretary has failed to prove that Trinity did not comply with the terms of 29 C.F.R. § 1915.56(a)(2) while the employee was using the welding rod holder on June 30, 2000.

Citation No. 1, Item 2
Alleged Serious Violation of 29 C.F.R. § 1910.1200(h)(1)

The Secretary in Citation No. 1, item 2, alleges that:

Employees were not provided information and training as specified in 29 CFR 1910.1200(h)(1) on their initial assignment and whenever a new hazard was introduced into their work area (Maritime Reference 1915.1200):

Employees were not provided training on such items as the Jetweld 2 welding rods, exposing employees to such hazards as Iron, Manganese, Manganese alloys and compounds, Silicates and other binders, Quartz, Cellulose and other carbohydrates, Mineral silicates, Silicon, Silicon alloys and compounds, Iron Oxides, Arc rays, electric shock, and radiation.

The standard clearly applies to respondent's operations.

The standard at 29 C.F.R. § 1910.1200(h)(1) provides:

(h) *Employee information and training.* (1) Employees shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (*e.g.*, flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets.

Minimum requirements for employee training are set forth in 29 C.F.R. 1910.1200(h)(3) as follows:

(3) *Training.* Employee training shall include at least:

(i) Methods and observations that may be used to detect the presence or release of a hazardous

chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

(ii) The physical and health hazards of the chemicals in the work area;

(iii) The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,

(iv) The details of the hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

The issues to be decided are whether respondent provided its employees training relating to the hazards of welding rods such as the Jetweld 2 welding rods, and whether such training complied with the requirements of the standard.

The Secretary alleges that Trinity violated the terms of the standard based on an interview statement by one employee, Travis Taylor. During that interview, Mr. Taylor stated that he was not trained on the Material Safety Data Sheets and the hazard communication program. Herbert Snapp, the OSHA investigator, testified training was not provided to Mr. Taylor relating to the hazards associated with the Jetweld 2 welding rod that was being used by employees on June 30, 2000.

At the hearing, Mr. Taylor testified initially that he was not trained or instructed on the adverse effects of welding fumes, the composition of the welding rod, or the electrical hazards of welding. During cross-examination, however, he stated that during training he was told about the hazards of welding fumes, using the rod, and about the dangers of possible shock

from welding. This witness appeared confused during his testimony on training and information actually provided to him. He readily agreed with questions suggesting first that he was not trained and later that he was or might have been trained adequately concerning the hazards relating to welding. After observing the demeanor of this witness and thoroughly reviewing his testimony on this issue, I find his testimony lacks credibility as to whether or not he was adequately trained on the chemical and physical hazards of the welding rods used on June 30, 2000.

Trinity provides HAZCOM training for its employees when they are hired and then subsequently on an annual basis. The standard at 29 C.F.R. § 1910.1200(h)(1) allows information and training to cover categories of hazards or specific chemicals. Trinity's training did not address specific chemicals in the welding rods, but rather addressed categories of hazards, *i.e.*, welding fumes, heat, burns, flash burns to eyes, and personal protective equipment (PPE). Its training covers types of metals and chemicals generally found in welding rods and fumes and health effects of breathing fumes. Ventilation and PPE are also discussed.

Sherry Hay, Trinity's site safety manager, provides comprehensive safety training for new hires. She gave new employee training during the period that Travis Taylor was hired. She gives the same training every week. That training includes the above-described HAZCOM training relating to welding hazards. While Ms. Hay did not specifically recall Mr. Taylor, she did recall providing this training and instruction for all newly hired employees during the period when Mr. Taylor was hired. I conclude that this training was provided to Mr. Taylor. The Secretary has not presented sufficient evidence to prove that such information and training relating to welding hazards did not comply with the requirements of 29 C.F.R. § 1910.1200(h)(1).

Citation No. 2, Item 1
Alleged Willful Violation of Section 5(a)(1) of the Act

In order to prove a violation of section 5(a)(1) of the Act [29 U.S.C. § 654(a)(1)], the Secretary must show that: (1) a condition or activity in the employer's workplace presented a hazard to employees; (2) the cited employer or the employer's industry recognized the hazard; (3)

the hazard was likely to cause death or serious physical harm; and (4) feasible means existed to eliminate or materially reduce the hazard. *Waldon Health Care Center*, 16 BNA OSHC 1052, 1993 CCH OSHD ¶ 30,021 (Nos. 89-2804 & 89-3097, 1993) (consolidated).

The Secretary in Citation No. 2, item 1, alleges that:

The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees in that employees were exposed to:

The employer did not ensure that employees were wearing dry clothing such as gloves and other garments while performing welding operations at the rake bottom assembly area, exposing employees to the hazard of electric shock. Among other methods, one feasible and acceptable abatement method to correct this hazard is to ensure that employees are always wearing dry gloves and clothing when welding.

The Secretary's citation did not indicate the date of the alleged violation of section 5(a)(1), but the parties clearly understood that the working conditions were those that existed on June 30, 2000.

Evidence presented at the hearing focused on two distinct alleged hazards: wet gloves and wet clothing. For convenience, these alleged conditions will be separately considered.

Armand Provencher, on his first full day as a welder for Trinity, was tack welding steel angle braces to flat steel. He was wearing welding gloves made of leather and kevlar. Mr. Provencher had difficulty laying a bead, was sweating profusely, and appeared very nervous.

James Fitts, an experienced fitter, worked with and in close proximity to Mr. Provencher throughout the morning of June 30, 2000. Although he saw Mr. Provencher sweating a great deal, he did not notice whether his gloves were sweaty.

Randle Krantz teaches welding to employees of Trinity. Mr. Snapp, the OSHA compliance officer, testified that Mr. Krantz told him he was helping Mr. Provencher get started welding on June 30, 2000, and Mr. Provencher's clothing and gloves were wet. On cross-examination Mr. Snapp testified that when he asked Mr. Krantz if the gloves were wet, Mr. Krantz responded, "Yes, I'm sure they were wet because he was sweating so much." At the hearing, Mr. Krantz testified that he did not observe whether Mr. Provencher's gloves were wet and that he did not recall telling Mr. Snapp that this employee's gloves were wet.

In its posthearing brief, respondent admits that it expects a welder's gloves to come in contact with the energized welding rod holder and that the gloves insulate the welder from the energized rod holder. Trinity also recognizes that gloves do not provide insulation if saturated, *i.e.*, wet on the outside and all the way through. Charles Latiolais, Trinity's corporate director, testified that the company trains welders to keep at least two pairs of gloves and change them if they become saturated. Travis Taylor, a fitter and welder, testified that his supervisor, Don Littlefield, instructed him not to touch anything if his gloves are wet and for him to put on a dry pair. There appears to be no dispute between the parties that gloves saturated with sweat or water are hazardous conductors of electricity and must be changed.

The Secretary produced insufficient evidence to prove that Mr. Provencher's gloves were saturated or wet outside or that Trinity failed to ensure that his gloves were dry. While the welder's hands may have been sweaty inside the gloves, no evidence was presented to show that the gloves were saturated with sweat or otherwise wet on the outside where the gloves might contact an energized electrical part and conduct electricity to the welder. The Secretary failed to prove that the gloves worn by Mr. Provencher created a hazard.

Witnesses consistently testified that Armand Provencher's shirt was soaked with sweat prior to the incident on June 30, 2000. Randle Krantz, the welding instructor, testified that Provencher was sweating profusely. Donald Shelton, the employee's supervisor, told the OSHA compliance officer that Provencher was sweating a great deal and was wringing wet with sweat. Richard Gaye, Trinity's lead man who assigned Provencher his work, told Mr. Snapp the welder was sweating a lot and very nervous. James Fitts testified that Provencher was sweating a lot, and water was dripping down on the metal plate. He gave consistent statements to the OSHA

compliance officer and to Trinity. While the condition of Mr. Provencher's sweat-soaked shirt is undisputed, the questions to be decided are whether this condition constitutes a hazard and, if so, whether such hazard is recognized by respondent or its industry.

The Secretary has asserted throughout this case that welding while wet or sweaty is a recognized hazard. The Secretary's argument that the sweat-soaked shirt worn while welding is a recognized hazard is based primarily on the Material Safety Data Sheet for the welding rods used by respondent (Exh. C-7), the Operating Manual for the arc welding machine (Exh. C-8), ANSI Standard Z49.1, and the testimony of Stewart Adams, complainant's expert witness.

The Material Safety Data Sheet (MSDS) for the welding rods used by Trinity reference the ANSI Standard Z49.1 and provides precautions in part as follows:

Protective Clothing: Wear hand, head, and body protection which help to prevent injury from radiation, sparks and electrical shock. See Z49.1. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not to permit electrically live parts or electrodes to contact skin . . . or clothing or gloves if they are wet. Insulate from work and ground.

This MSDS was in effect and in Trinity's possession on June 30, 2000. It was given to the Secretary by Malcolm Fontenette, Trinity's marine division safety manager.

The operating manual for the Idealarc Lincoln Welder used by Mr. Provencher on June 30, 2000, provides safety precautions in part:

1. Protect yourself from possible dangerous electrical shock:
 - a. The electrode and work (or ground) circuits are electrically "hot" when the welder is on. Never permit contact between "hot" parts of the circuits and bare skin or wet clothing, wear dry, hole-free gloves to insulate hands.

This manual was also provided to OSHA by Mr. Fontenette.

The American National Standard for Safety in Welding, Cutting and Allied

Processes in effect on June 30, 2000, was the 1999 edition of ANSI Z49.1. Section 11.4.9.1 of that standard is identical to the same numbered section of an earlier edition offered into evidence at the hearing by complainant in Exhibit C-9. At the hearing, I delayed ruling on admitting that exhibit. The earlier edition contained in Exhibit C-9 was not in effect on June 30, 2000. The Secretary did not indicate the time period during which it was in effect. After consideration, Exhibit C-9 is rejected. Mr. Snapp's testimony relating to that portion of ANSI Z49.1 that is identical to the 1999 edition is allowed. With agreement of counsel after the hearing, judicial notice is taken of ANSI Z49.1:1999. Section 11.4.9.1 of that standard provides:

11.4.9.1 Live Metal Parts. The welder shall never permit the live metal parts of an electrode, holder, or other equipment, to touch bare skin or any wet covering of the body.

In her brief, the Secretary addresses the current edition of ANSI Z49.1. She did not offer that edition into evidence but I will consider it, having taken judicial notice of it. Complainant refers to standards set forth in sections E11.2.2 and E4.3.6. A careful review of Z49.1 reveals that these paragraphs are not standard requirements, as argued by complainant, but rather are merely explanatory information. All such paragraph numbers of explanatory information is preceded by the letter "E". This is explained on page 1 of ANSI Z49.1

Explanatory information paragraphs must be read in conjunction with the corresponding Standard paragraph. Standard requirements are listed in the left columns and explanatory information on the right. The explanatory sections cited by the Secretary must be read in conjunction with the standard requirements that they explain or to which they are added. The standard at 11.2.2 provides:

11.2.2 Environmental Conditions. When using alternating current (ac) or direct current (dc) arc welding machines, the welding operator shall take special care to prevent electrical shock, when working under electrically hazardous conditions. The manufacturer shall be consulted when unusual service conditions are encountered.

The corresponding explanatory information at E11.2.2 provides in part:

E11.2.2 Water or perspiration may cause electrically hazardous conditions. Electrical shock may be prevented by the use of nonconductive gloves, clothing, and shoes and avoiding contact with live electrical parts.

The standard requirement at 4.3.6 provides:

4.3.6 Other Protective Clothing. Properly fitted flame-resistant plugs in the ear canals, or equivalent protection, shall be used where hazards to the ear canals exist.

(This refers only to ear plugs.)

The corresponding explanatory information at E4.3.6 provides:

E4.3.6 Dry, hole-free clothing will usually be sufficient to adequately insulate the welder from electric shock (see 11.3 and 11.4).

Note that E4.3.6 refers to section 11.4, which includes section 11.4.9.1 that specifically advises against contact of wet clothing with live electrical parts of welding equipment.

Reading these sections and explanatory paragraphs in conjunction with section 11.4.9.1 does not lead to the conclusion that the ANSI standard, the American National Standards Institute, or the shipbuilding industry, recognizes that welding while wearing other than dry clothing is a hazard.

The MSDS not only references ANSI Z49.1, but warns the employer to train the welder not to permit live parts or electrodes to contact skin or wet clothing. The Idealarc operating manual uses similar language to warn the user to never permit contact between electrically “hot” parts of the circuit and bare skin or wet clothing.

The emphasis in section 11.4.9.1 of ANSI Z49.1, the MSDS, and the operating manual is on the avoidance of contact between energized parts and bare skin or wet clothing. All three envision or anticipate that welders will wear wet clothing during some welding operations. The action required in all three documents is to not permit the live metal parts of the electrode, the holder, or other equipment to contact that wet clothing. None of these documents prohibit

wet clothing or require welders to wear dry clothing.

Stewart Adams testified on behalf of the Secretary. Mr. Adams is employed at the Puget Sound Naval Shipyard in Bremerton, Washington. He is a supervisor and safety specialist in the safety and health office of the shipyard. Mr. Adams manages the safety programs for the shipyard, including electrical safety. He supervises a staff of fifteen employees. The Puget Sound Naval Shipyard is a United States Naval facility which repairs Navy ships. It has six dry docks and approximately 7,500 employees. Approximately 450 welders work daily at the shipyard. While Mr. Adams' experience has been in the four large public shipyards in the United States, he was of the opinion that work conditions at the Puget Sound shipyard are similar to those in private shipyards.

Mr. Adams testified that he was of the opinion that there is a hazard when someone welds while his clothing is wet. He based this opinion in part on perspiration being a good conductor since it is water saturated with salt. He further opined that if clothing is wet, it becomes a good conductor, and any insulating properties it had are decreased significantly because it is wet. He later testified, in his opinion, once a person's clothing becomes wet, it is going to conduct electricity and poses an electrical safety hazard if electricity is near that person.

Mr. Adams testified that welding while wet or sweaty is a recognized hazard, indicating that once clothing becomes wet and saturated, it will conduct electricity. He stated that this hazard is recognized in the shipbuilding industry. He testified that ANSI Z49.1 is recognized in the shipbuilding industry, stating that at times different shipbuilding councils are members of the ANSI committee. He did not elaborate on this assertion. No names of councils or members were provided. No dates of service were given. Throughout Mr. Adams' testimony, few underlying facts or data were elicited by complainant as bases for Mr. Adams' opinions. Most of his opinions appear to be based on other opinions or unidentified scientific principles relating to the conductivity of electricity in the medium of impure water or sweat.

Mr. Adams admitted that in confined spaces within ships, it is hot; welders sweat; everybody sweats. If they do not, they are going to be very sick. He felt that sweating was not a bad thing until it saturated clothing, which can lead to an electrical safety issue of getting shocked.

This witness did rely in part on ANSI Z49.1 in forming his opinion that welding while wet or sweaty is a recognized hazard in the shipbuilding industry. As discussed above, section 11.4.9.1 of that standard anticipates the occurrence of clothing or body coverings being wet. It does not prohibit such wet clothing or direct that dry clothing must be worn. That standard does direct that live metal parts of the electrode, holder or equipment never be permitted to touch the wet clothing.

The Secretary and its witness, Stewart Adams, rely on this ANSI standard to assert that Trinity exposed its employees to the hazard of electric shock by not ensuring that employees were wearing dry clothing. As discussed more fully above, the ANSI standard does not mandate or require that dry clothing be worn while welding. Acknowledging the fact that welders will wear wet clothing at times while welding, section 11.4.9.1 of ANSI Z49.1 prohibits the welder from touching such wet clothing with live electrical metal parts of the welding equipment. Prohibiting contact of such live electrical parts to wet clothing is not equivalent to requiring that such clothing be dry while welding. It also does not serve as support for an opinion or allegation that failure to ensure employees wear dry clothing while welding is a hazard recognized by respondent or its industry.

Trinity maintained the MSDS that referenced the ANSI standard. It also had in its possession the operating manual that contained warnings similar to those in section 11.4.9.1 of the ANSI standard. Even if respondent were aware of the ANSI standard or members of its industry served on ANSI committees, recognition of the hazard by Trinity or its industry would not necessarily require respondent to take steps beyond ensuring that live parts do not contact wet clothing while welding. Respondent cannot be found to have recognized a hazard of electrical shock from welding without ensuring that its welders wore dry clothing.

The evidence presented by the Secretary in this matter is insufficient to prove that failure to ensure employees wore dry clothing while welding exposed employees to the hazard of electrical shock. Furthermore, the Secretary failed to prove that allowing employees to weld

while wearing wet clothing was a hazard recognized by respondent or its industry.

FINDINGS OF FACT AND
CONCLUSIONS OF LAW

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

ORDER

Based upon the foregoing decision, it is ORDERED:

1. Citation No. 1, item 1, alleging a violation of 29 C.F.R. § 1915.56(a)(2) is vacated.
2. Citation No. 1, item 2, alleging a violation of 29 C.F.R. § 1910.1200(h)(1) is vacated.
3. Citation No. 1, item 3, is withdrawn by the Secretary and, therefore, is vacated.
4. Citation No. 2, item 1, alleging a violation of section 5(a)(1) of the Act is vacated.

STEPHEN J. SIMKO, JR.
Judge

Date: March 7, 2002