



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

SECRETARY OF LABOR,

Complainant,

v.

TRINITY YACHTS, LLC,
and its Successors,

Respondents.

OSHRC Docket No. 09-1123

APPEARANCES:

Charles F. James, Counsel for Appellate Litigation; Heather R. Phillips, Counsel for Appellate Litigation, U.S. Department of Labor, Washington, DC; Dolores G. Wolfe, Trial Attorney, U.S. Department of Labor, Dallas, TX
For the Complainant

Susan Fahey Desmond, Esq., Watkins Ludlam Winter & Stennis, P.A., Gulfport, MS
For the Respondent

REMAND ORDER

Before: ROGERS, Chairman; THOMPSON and ATTWOOD, Commissioners.

BY THE COMMISSION:

On review is a decision of Administrative Law Judge G. Marvin Bober affirming one of three citation items issued to Trinity Yachts, LLC ("Trinity") pursuant to the Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651-678. For the following reasons, we remand this case to the judge for further proceedings consistent with this opinion.

This is the second time we have considered this matter on review. On October 29, 2010, the judge issued a decision in this case ("October decision"), in which he vacated Citation 1,

Item 1 and affirmed Citation 1, Items 2 and 3.¹ Trinity filed a timely petition for review of the judge's October decision, which was granted. On review, the Commission concluded that the October decision contained possible clerical errors or errors arising from oversight or omission. Therefore, consistent with Commission Rule of Procedure 90(b)(3), the Commission remanded the case to the judge with instructions to review his October decision and make any necessary corrections. 29 C.F.R. § 2200.90(b)(3). On remand, the judge issued a Corrected Decision and Order dated February 22, 2011 ("February decision"), affirming only Citation 1, Item 2, which concerns Trinity's training program. Trinity again filed a timely petition for review, which was granted.

In his February decision, the judge affirmed Item 2 based on his finding that Trinity failed to provide adequate training in the hazards associated with working in enclosed spaces with argon gas. During the hearing, Trinity introduced its safety manual along with evidence of written training materials concerning confined and enclosed spaces, as well as the use of argon. In addition, Trinity's safety manager and the direct supervisor of the decedent, who was the only employee referenced in this citation item, both testified generally about the company's policies and training practices. Trinity then called its human resources administrator to testify about the actions that she personally took to ensure that the decedent, who apparently had difficulty with reading and writing, understood the company's policies and procedures. Following a colloquy between the judge and Trinity during which the judge questioned the need for this witness's testimony, Trinity was apparently left with the impression that, in the judge's view, the facts to which this witness would attest had already been established. As a result, Trinity's counsel concurred that the testimony was unnecessary if the judge was otherwise satisfied that the facts to be provided by the proffered testimony had already been established. The judge then dismissed the witness. Nonetheless, despite his view during the hearing that this particular evidence was unnecessary, the judge later found in his decision that Trinity had not, in fact, established that the decedent understood the risks associated with working with argon gas and the requisite safety precautions.

¹ Item 1 concerns atmospheric testing in a confined space (29 C.F.R. § 1915.12(a)(1)(iii)), Item 2 concerns training related to confined spaces (29 C.F.R. § 1915.12(d)(2)(ii)), and Item 3 concerns ensuring ventilation during welding activities (29 C.F.R. § 1915.51(f)(1)).

Based on our review of the record, we find that the judge erred in concluding that the administrator's testimony was unnecessary to determine the sufficiency of the decedent's training. Although relevant evidence may be excluded under Federal Rule of Evidence 403 when it would be a "waste of time" or a "needless presentation of cumulative evidence," the evidence proffered here falls into neither category. Fed. R. Evid. 402, 403; *Broshear Contractors, Inc.*, 1992 CCH OSHD ¶ 29718, 1992 WL 137489 (No. 91-2125, 1992). On the contrary, because the present record suggests that the decedent had difficulty with reading, the sufficiency of his training cannot be fully evaluated by only considering Trinity's written training materials and its safety manager's general discussion of the program. Therefore, we remand this case to the judge and direct him to re-open the record for the limited purpose of allowing the parties to elicit testimony from Trinity's human resources administrator regarding the decedent's training, and to provide the Secretary with an opportunity to respond to this evidence accordingly. The judge is instructed to then reconsider his entire decision in light of this new evidence.

SO ORDERED.

/s/ _____
Thomasina V. Rogers
Chairman

/s/ _____
Horace A. Thompson III
Commissioner

/s/ _____
Cynthia L. Attwood
Commissioner

Dated: April 26, 2011

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SECRETARY OF LABOR,	:	
	:	
Complainant,	:	
	:	
v.	:	OSHRC DOCKET NO. 09-1123
	:	
TRINITY YACHTS, LLC	:	
And its Successors	:	
	:	
Respondent.	:	
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APPEARANCES:	Dolores G. Wolfe , Esquire Office of the Solicitor U.S. Department of Labor 525 S. Griffin Street, Suite 501 Dallas, Texas 75202 For the Complainant.	Susan Fahey Desmond, Esquire Watkins, Lunlam, Winter & Stennis, One Hancock Plaza Post Office Drawer 160 Gulfport, Mississippi 39502 For the Respondent.
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BEFORE: G. Marvin Bober,
 Administrative Law Judge

CORRECTED DECISION AND ORDER¹

This proceeding arises under the Occupational Safety and Health Act of 1970, as amended, 29 U.S.C. § 651 *et seq.* (“the Act”). Following a fatality at the worksite of Trinity Yachts, LLC, (“Respondent”), the Occupational Safety and Health Administration (“OSHA”) conducted an inspection of respondent’s worksite from January 9, 2009 through May 18, 2009. As a result of the inspection, OSHA issued to Respondent a Citation and Notification of Proposed Penalty (“Citation”) on July 2, 2009. Respondent filed a timely Notice of Contest

¹ This matter has been remanded by the Commission, pursuant to Commission Rule of Procedure 90(b)(3), 29 C.F.R. §2200.90(b)(3), with leave to “correct clerical errors and errors arising through oversight or inadvertence” in my original decision. This decision corrects those errors and reflects the original intent of this Judge.

pursuant to section 10(c) of the Act, bringing this matter before the Occupational Safety and Health Review Commission (“the Commission”). The citation alleges three serious violations of the Act and proposes a total penalty of \$13,500. The Secretary has filed her Complaint in this matter, after which Respondent filed its Answer. The Secretary filed her Complaint and Amended Complaint in this matter and Respondent has filed a timely Answer. The parties have stipulated to certain facts that will be set forth, *infra*. A hearing was held in New Orleans, Louisiana from January 27-29, 2010. Both parties have filed post-hearing briefs

FACTS

On December 31, 2008, Respondent was constructing a luxury yacht at its worksite in New Orleans, Louisiana. While welding inside an area referred to as a “vent trunk,” welder **{redacted}** collapsed. He was found lying in the vent trunk, unresponsive, by a coworker. (Tr. 508) Attempts to revive him were unsuccessful and he was transported to a hospital where he was pronounced dead.

As a result of the fatality, an inspection was conducted by an OSHA Compliance Officer (“CO”). After the inspection, the Secretary issued to Trinity a Citation alleging three serious violations of the Act.

Item 1 of the Citation, as amended alleges that Trinity violated 29 CFR §1915.12(a)(1)(iii) in that:

The employer did not ensure that the starboard vent trunk space on the TO48 hull was visually inspected and tested by a competent person to determine the atmosphere’s oxygen content prior to the employee entering the space. The starboard vent trunk on the TO48 hull contained argon. This condition exposed the employee to an asphyxiation hazard².

Item 2 of the Citation alleges a violation of 29 CFR §1915.12(d)(2)(ii) on the grounds that:

The employee working in the starboard side vent trunk on TO48 was not trained in the hazards associated with working in the enclosed space with argon. This

² The citation originally alleged that :

The employer did not inspect the starboard vent trunk space on the TO48 hull to ensure the space contained no toxic gases (argon) prior to the employee entering the space. This condition exposed the employee to an asphyxiation hazard.

condition exposed the employee to an asphyxiation hazard.

Item 3 of the Citation alleges that Respondent violated 29 CFR §1915.51(f)(1) on the grounds that:

The employer failed to ensure that mechanical ventilation was being used in the enclosed starboard vent trunk on the TO48 hull. This condition exposed the employee to an asphyxiation hazard.

At the beginning of the hearing, the parties entered into the record a series of stipulations (Tr. 7-10):

1. Jurisdiction of this proceeding is conferred upon the Occupational Safety and Health Review Commission by Section 10(c) of the Occupational Safety and Health Act of 1970 (hereinafter “the Act”), 29 U.S.C. § 659(c).

2. Respondent, Trinity Yachts, L.L.C., is an employer engaged in a business affecting commerce within the meaning of Section 3(5) of the Act, 29 U.S.C. §652(5).

3. As a result of an inspection that began on or about January 9, 2009, Respondent was issued a citation on July 2, 2009, for a serious violation of the Act.

4. Complainant received a notice of intent to contest the aforesaid citation and notification of proposed penalty.

5. *{redacted}* was an employee of Respondent on December 31, 2008.

6. *{redacted}* used welding equipment on December 31, 2008.

7. *{redacted}* died on December 31, 2008.

8. On December 31, 2008, *{redacted}* was working inside the vent trunk of a yacht that was under construction.

9. On December 31, 2008, *{redacted}* supervisor was Charlie Nguyen.

10. According to Respondent’s Confined and Enclosed Spaces Program (Section 5.4), “No employee. . . will be allowed to enter an enclosed or confined space until the space to be entered has been ventilated, tested and approved by a Shipyard Competent Person, Marine Chemist or Certified Industrial Hygienist.”

11. On December 31, 2008, the above program was in effect.

12. In the 8 hours prior to *{redacted}* being found unresponsive, the vessel that *{redacted}* had been working in had not been ventilated, tested and approved by a Shipyard Competent Person, Marine Chemist or Certified Industrial Hygienist.

13. No atmospheric testing was performed prior to or during *{redacted}* work on December 31, 2008, of the location where he was working.

14. Mechanical ventilation was available but not used by *{redacted}* in the space where *{redacted}* was working on December 31, 2008.

15. *{redacted}* had not hooked up the blowers on December 31, 2008.

16. The MSDS on Argon identified as Government's Exhibit 6 states on page 2 of 4, Section 11, "Toxicological Information. Toxicity information: no known toxicological effects from this product."

17. The MSDS on Argon identified as Government's Exhibit 6 states on page 2 of 4, Section 9, "Physical and Chemical Properties. Relative density, gas (air=1): 1.38"

The Relevant Testimony

Charlie Nguyen

Charlie Nguyen is a Lead Man and supervisor for Trinity (Tr. 37) Nguyen was *{redacted}* supervisor at the time of the accident. He testified that *{redacted}* reported to work at 6:00 a.m. on December 31, 2008 (Tr. 38) *{redacted}* first began work in the engine room where he used argon to weld some overboard line on aluminum pipe (Tr. 39-41). According to Nguyen, *{redacted}* completed this task and, at approximately 8:45 a.m. entered the vent trunk to weld on a copper-nickel pipe, including an elbow joint on the copper pipe near the floor inside the vent trunk. (Tr. 47, 57, Ex. P-13, p.3) Nguyen testified that he told *{redacted}* to be careful and make sure that everything was "true." He reminded *{redacted}* to use his blower for and to let him know if there was any piping or iron in his way so it could be removed before he began his work. (Tr. 47) Indeed, he would remind *{redacted}* every day to use his blower and *{redacted}* would reply, "I know, Charlie." (Tr. 149) He could not remember any time when *{redacted}* did not use his blower while welding. (Tr. 155) After entering the vent trunk, *{redacted}* came out and told Nguyen that "everything is fine. No problem." (Tr. 47) *{redacted}*

then began to set up in preparation for welding, including converting his equipment from running on AC to DC. (Tr. 93, 96) **{redacted}** brought the argon line into the vent trunk with him. (Tr. 66-67) At 9:00 a.m. the break whistle blew. **{redacted}** was observed by a co-worker at the drink vending machine during the break. (Tr. 93) The break period is 10 minutes long. (Tr. 93) Therefore, **{redacted}** returned to the vent trunk at 9:10 a.m. He was found unconscious at approximately 9:18 a.m. and pulled out at 9:30 a.m (Tr. 507)

According to Nguyen, the welding process required the use of an argon line that was attached to a main manifold and a flow meter on the ground. (Tr.52). According to procedure, before turning on the argon line, it is fed about five inches directly into the copper pipe. (Tr. 69, 70, Ex. P-14, p.4) **{redacted}** would wrap the argon line with blue tape to hold it in place, and would cover the blue tape with aluminum/silver tape as a fire suppression measure in case the blue tape melts. (Tr. 69, 75-76, 142, Ex. P-23) Once the silver tape is in place, the welding can begin. (Tr. 77) The argon is then turned on, the copper pipe is filled with argon, a tiny portion of the blue tape is pulled back and welding begins. (Tr. 77, 84) Welding would be accomplished with a tig torch that, when activated, automatically feeds argon to the area to be welded. (Tr. 50)

After the accident, Nguyen noted that the argon line placed inside the copper pipe and taped to keep it in place. (Tr. 53, 76) However, Nguyen noted that, after the accident, there was no silver tape on the joint that was to be welded, indicating to him that **{redacted}** had not yet begun welding. (Tr. 85) Nguyen observed that the argon valve was not on. (Tr. 50) He admitted that he did not observe the line until it was removed after the accident. (Tr. 90) He also testified that **{redacted}** blower was still inside the vent trunk. (Tr. 92)

Nguyen did not know what a Material Data Safety Sheet (MSDS) is. (Tr. 105, Ex. P-6) However, he saw the MSDS for argon several years back in the office in the safety trailer. He passed by it, but never read it. (Tr. 111-112, 156) According to Nguyen, safety training usually consists of watching a video, followed by a discussion and written questions. (Tr. 112) He noted that if there is something an employee doesn't understand, it is explained. (Tr. 112) Regular safety meetings are longer than 10 minutes and employees are given 15-30 minutes to read any documentation that gets handed out. (Tr. 124, 126) However, employees believe that they are given all the information they need at the safety meeting and, therefore, find no need to read the

handouts. (Tr. 127)

Nguyen testified that he saw Trinity safety documents, such as its Confined Space program (Ex. P-19), Safety Environmental Handbook (Ex. P-22), Welding and Cutting Practices (Ex. P-20) and Starboard Ventilation Procedure (Ex. P-21) but had not read them. (Tr. 113-115, 119-121) He explained that he tried to read them, but had difficulty due to language problems. (Tr. 117) Therefore, the documents were reviewed with him and, when there was something he did not understand, he would have the safety man explain it to him. (Tr. 115, 117-118)

According to Nguyen, the safety department always reminds them that whenever they weld inside a tank or anywhere where the employee is boxed up, they are to let the safety department know so they can check the area out. (Tr. 132) However, the vent trunk was an open area where air came in and out. Nguyen testified that the safety department doesn't test where the area is wide open. (Tr. 133)

Nguyen testified that he knows that argon gas is some kind of gas to make aluminum weld on a copper nickel. He did not know anything about its weight. However, he testified that it would go right through a respirator and knew that it was odorless and colorless. (Tr. 128) Also, when welding with argon, it "strays" just like air. (Tr. 130) He testified that he once inhaled argon due to a leak from his own torch line. The argon made him sleepy. (Tr. 129-130) When that happens, he goes to the bathroom to wash his face, and uses a blower to ventilate the area. (Tr. 131, 135) He testified that he would regularly remind the welders about getting sleepy from argon, and the need to wash up. (Tr. 154)

Robert Harrington

Robert Harrington has been an OSHA compliance officer for five years. (Tr. 177) He testified that the fatality was reported to OSHA by Trinity Safety Officer, John McFarland, on December 31, 2008 (Tr. 178-180) An OSHA Form 36 was filled out by the OSHA Intake Officer on duty, based on McFarland's report. (Tr. 243-244) However, for some reason to CO could not explain, he did not learn of the fatality until January 5, 2009. (Tr. 243-244) Based on that form, Harrington learned that that an employee was setting up for Tig welding operations in an inside compartment in an aluminum yacht that was under construction. The deceased was found face down in the compartment by a fellow employee. When found the vent had been filled with

argon. Argon gas was still on and was shut off by the employee that found the deceased. (Tr. 179-180, Ex. P-10)

Harrington testified that he relied on the certificate of death for his determination that *{redacted}* died of argon asphyxiation. (Tr. 191) According to the certificate, the cause of death was “Asphyxia due to suffocation due to exposure to argon gas.” (Ex. P-9)

The CO explained that the vent trunk is above the engine room on the starboard side. (Tr. 251) Harrington measured the vent trunk to be approximately 5 x 4 x 8 feet tall. It had three solid walls. The fourth wall had a three foot square opening cut-out that functioned as a door. The cut-out was the only exit/egress from the vent trunk. (Tr. 208) The door began 2 feet, 4 inches above the floor of the vent trunk. (Tr. 203-205) He observed no openings in the floor of the vent trunk. (Tr. 205) On the ceiling, there was a long, narrow opening a approximately 4 feet, 5 inches long and about 1 foot, 7 inches in width. In addition there were several 1/8 inch slits around the ceiling. (Tr. 205-206)

During the inspection, the CO interviewed John McFarland, Keith Roberts (one of the rescuers) and Charlie Nguyen. (Tr. 253) According to the CO, McFarland told him that he considered the vent trunk to be an enclosed space. (Tr. 210) McFarland told him that the vent trunk was not tested prior to the accident, but was tested afterwards. (Tr. 211) The CO opined that the failure to test prior to *{redacted}* entry endangered *{redacted}* and the two employees who entered the vent trunk to rescue him. (Tr. 221) The CO read from Trinity’s Confined and Enclosed Space Program where it is stated that: “No employee, sub-contractor, vendor, and/or visitors will be allowed to enter an enclosed or confined space until the space to be entered has been ventilated, tested, and approved by a Shipyard Competent Person, Marine Chemist, or a Certified Industrial Hygienist.” (Tr. 213, Ex. P-19, p.3, Sec. 5.4)

Nguyen explained to the CO that, before beginning work, the welder would bring in the argon line, place it in the pipe and put blue tape around it prior to turning on the argon. The blue tape is attached to keep the argon from leaking out of the pipe and to hold the pressure. Then silver tape is placed over the blue tape to keep it from melting. Not until that is done is the argon line actually turned on. Once the welding started, the process required that part of the tape would be removed so that the argon can be accessed and produce a good weld. (Tr. 257-259) The CO

testified that the silver tape had not yet been put on and that he had no information to suggest that *{redacted}* completed the process of setup up prior to his death. (Tr. 259) However, the CO testified that when the argon line is in the compartment, even if the valve inside the compartment is not turned on, there is still argon in the line that comes from the manifold. (T. 297-298) McFarland told the CO that when *{redacted}* was recovered from the vent trunk, the argon line was turned about a quarter turn and the argon was flowing. (Tr. 210-211) McFarland also indicated that he was baffled by the fatality and neither Roberts nor Nguyen knew what killed their co-worker. (Tr. 262, 264) The CO admitted that no atmospheric measurements were provided to him and reiterated that he based his conclusion of argon asphyxiation on the Medical Examiners report. (Tr. 266) Also, he did not interview the rescue workers to determine whether they experienced any dizziness. In fact, at the time of the hearing, he just learned that rescue workers were involved in the incident. (Tr. 268) There was no evidence that any of the rescuers used respirators. (Tr. 225)

The CO testified that he cited item 1, for failure to test the vent trunk prior to employee entry, because argon was being used in the compartment. (Tr. 220) He relied on the Medical Examiner's report that stated the cause of death as "Asphyxiation, secondary suffocation, exposure to argon gas while working in the hold of a ship." (Tr. 220, Ex. P-7, p.2) He also relied on the MSDS for argon (Ex. P-6) which, at section 3, states that "in high concentrations may cause asphyxiation" and section 4, which states that "In high concentration it may cause asphyxiation. Symptoms may include loss of mobility/unconsciousness. Victim may not be aware of asphyxiation." (Tr. 223-224) The CO explained that he didn't test the atmosphere in the vent trunk himself because, by the time of his investigation, several air exchanges had taken place. He testified that he had no trouble breathing when he entered the vent trunk. Indeed, based on witness statements, the CO concluded that there was argon flowing into the vent trunk because Roberts turned it off. (Tr. 279) He agreed that, to the best of his knowledge, it was *{redacted}* who first brought argon into the vent trunk. However, he opined that it would not be necessary to have the vent trunk tested for oxygen content if it were certain that there was no gas in the vent trunk. (Tr. 278)

The CO looked over Trinity's training documents and saw no evidence of argon training.

(Tr. 227) He noted, for example, that they informed employees know about MSDSDs, but left it up to the employees to read them. (Tr. 227) The CO pointed out that *{redacted}* had reading problems. Therefore, posting the MSDS and expecting the employees to read it was particularly ineffective for *{redacted}*. (Tr. 229) Indeed, the CO opined that it is not enough to simply tell employees that a substance is hazardous. Rather, they must get into specifics, such as explaining the symptoms of exposure. (Tr. 231) The CO observed that the standards require the employer to certify that employees are properly trained in to anticipate and be aware of hazards they may encounter during entry. (Tr. 230) He saw no certificates that met the elements of the standard³.

Although he found no specific evidence of training, the CO testified that he made no inquiries about *{redacted}* job orientation at the time of his being hired. (Tr. 280-281) He didn't speak to the welders about what they knew about argon and didn't ask McFarland for specific about their training on argon. (Tr. 281) Further, he never talked to Nguyen or supervisor Robert Meyers about welder training. (Tr. 292) He knew that employees are shown a video about argon, but was not aware that they also received a written test. (Tr. 282) He was shown a document with *{redacted}* signature establishing that he attended a hazard communication (HAZCOM) safety meeting. (Ex. R-3, p.16) He testified that he first saw the document a couple of before the hearing, at the time of his deposition. (Tr. 287) He further testified that he asked for all documents related to training, but was not provided with the safety video that he had been only recently provided. (Tr. 302) He also testified that Trinity did not provide him with 72 pages of tool box meeting reports during his investigation. (Tr. 303)

The CO testified that Trinity failed to use mechanical ventilation. He noted that *{redacted}* personal blower was not in the compartment and was neither turned on nor plugged in. (Tr. 233) However, the CO opined that *{redacted}* blower would have provided adequate ventilation if it had been running. (Tr. 305) Also, the CO testified that he had just become aware that the facility had blowers that automatically come on when the electricity is turned on. (Tr. 292)

Turning to the proposed penalties, the CO testified that, because there was a fatality, no

³ The standard referred to by the CO is 29 CFR §1915.15(d)(5) . The Secretary did not cited Trinity for a violation of this standard.

credit was given for good faith. No discount was given for size because Trinity had 800 employees. However, a discount was provided for history because Trinity had not been cited for a serious violation for three years. (Tr. 235-237)

John McFarland

John McFarland is the safety and environmental manager for Trinity and conducted the investigation of the fatality. (Tr. 312-313, 389) He has held that position for four years. (Tr. 390) McFarland testified that he received an insurance report on the accident prepared by Strategic Comp Services just before he was deposed. (Tr. 315) The information in the report was obtained by visiting the site and interviewing employees. (Tr. 317) According to the report, when *{redacted}* was discovered, the welder's torch was in the off position and the purge line was in the open position. Also, *{redacted}* was using a dust mask rather than air purifying equipment. (Tr. 319, Ex. P-5) McFarland testified that the facility is located on land, not on water. Trinity's facility has four bays, so up to four yachts can be constructed at one time. The yacht involved in the accident was located in Bay 3. The argon manifold is located between Bays 2 and 3 and is where *{redacted}* connected one end of the argon line. He estimated that 4-5 people were attached to the argon line at the time. (Tr. 321-327)

Once connected to the argon manifold, welders connect their hose to the end of the argon manifold. The hose now has argon in it. At that point, the employee would be able to control the flow of the argon at the end opposite the manifold end. McFarland explained that once the argon line is connected and work begins, welders are not supposed to leave the argon line in the compartment while on a break. (Tr. 328) A former employee informed him that the argon line was opened after the accident. (Tr. 339)

McFarland testified that, if an employee is "in doubt" of any product he is using, he would go over the MSDS for that product. He stressed that the MSDS is available to employees and that, before Hurricane Katrina, all MSDSs were located in the tool rooms where employees could review them. If there was anything an employee did not understand, the safety department would review it with them. (Tr. 341, 344-345) McFadden could not verify that *{redacted}* ever saw the MSDS for argon. (Tr. 342) On cross-examination, McFarland explained that employees must go through training on safety procedures before they perform work. This training is

conducted by himself and the Human Resources manager. (Tr. 414) Outlining the training procedures, McFarland testified that new employees are brought to the Orientation room where they talk about the company and what they will be encountering in the shipyard. They then watch a video by the Safety Council Association on shipyard employment. Once they watch that video they are briefed on company policies and procedures through a checklist. They go down the line and talk about each topic. (Tr. 416-417) Although they don't discuss argon specifically, they talk about all types of gas. Employees are left on their own to read the MSDS. (Tr. 417) They then take a test to determine their knowledge. The basic purpose of the test is to ensure that they were alert and paying attention to their training. (Tr. 418)

Respondent holds safety meetings every Wednesday which is led by a supervisor. (Tr. 419) He also testified that his subordinate, Mr. LaCour has the responsibility to walk through each vessel and make sure no one left any lines or anything out and to make sure that there is adequate lighting. (Tr. 419)

McFarland described the vent trunk as an "enclosed open space." (Tr. 345) He agreed that it was Trinity's policy that prior to any employee entering an enclosed space, that space must be both inspected and tested by a competent person. (Tr. 349-350) He noted, however, that rather than testing the oxygen levels, it sometimes is sufficient to do a visual inspection. (Tr. 350-351) McFarland explained that the oxygen levels don't need to be checked when there is nothing to contaminate the area and also when there is adequate ventilation. (Tr. 350-351) McFarland agreed that Trinity policy required all enclosed spaces to be inspected by a shipyard competent person, Marine Chemist or Certified Industrial Hygienist prior to employee entry. (Tr. 352-353, Ex. P-19, p.3, Section 5.4) He noted, however, that Trinity's supervisors and welders were trained and were considered competent persons. (Tr. 353-354) To actually test the atmosphere, however, company protocol requires that the safety department be contacted. (Tr. 355) It is company policy to test for oxygen deficiency in confined, as opposed to enclosed, spaces. (Tr. 358) He affirmed that there was no testing of the vent trunk prior to *{redacted}* entry. (Tr. 357)

McFarland testified that Trinity's "Confined and Enclosed Spaces Program" contains requirements almost identical to the OSHA standard regarding employee entry into an enclosed or confined space. (Tr. 422, Ex. P-19, section 5) However, he opined that the vent trunk did not

meet the definition of an “enclosed space” because it was open and there was nothing in there prior to *{redacted}* entrance that would require testing. (Tr. 422) McFarland testified that, besides the opening in the ceiling and the door, there were also 1/8 inch cracks in the floor of the vent trunk. (Tr. 373) McFarland noted that a bathroom would “most definitely” be considered an enclosed space, but wouldn’t require testing before entrance. (Tr. 422)

The two employees who entered the vent trunk to rescue *{redacted}* were not wearing airline respirators. (Tr. 372) McFarland explained that they don’t have such respirators because there is no area that requires them. (Tr. 372)

McFarland explained that, when he arrived at the accident site, CPR was being administered. (Tr. 392) He joined in by administering mouth to mouth while another employee performed chest compressions. (Tr. 392) This continued for 10-12 minutes, until the ambulance arrived. (Tr. 393) When he called OSHA to report the fatality, he did not tell them that the vent trunk had been filled with argon because, to that point, he hadn’t talked to any witnesses nor made any inquiries regarding argon. (Tr. 398) Indeed, he thought that *{redacted}* might have suffered a heart attack. (Tr. 394)

McFarland testified that he stayed at the facility until 10 p.m. waiting for OSHA to arrive, but nobody came. A week later he received a call from OSHA telling him he violated the Act for not reporting the fatality. (Tr. 399) Eventually, the matter got straightened out and CO Harrington came to the site. (Tr. 400) Between the date of the accident and the inspection, he secured the area. He took pictures before he entered the vent trunk and had lines removed to have them checked. (Tr. 401) According to McFarland, on the first day of the inspection, he never told the CO whether argon was used in the vent trunk and told him that all signs pointed to a heart attack. (Tr. 403-404) They both entered the vent trunk and he explained what *{redacted}* was doing at the time of the accident. (Tr. 405) McFarland, who is 5’6” and 340 pounds, testified that there was no problem fitting both of them in the vent trunk and there was no problem breathing. (Tr. 406-407)

On cross-examination, McFarland explained that the personal blowers used by the welders are actually company property. They are not purchased by the employee but are assigned to each employee by the company, hence the term “personal blower.” The welder is required to

have the blower with him at all times. If there is a problem with the blower, the employee is required to tell his supervisor. (Tr. 425) However, there is nothing really to inspect on the blower. You plug it in and it either works or it doesn't. (Tr. 436) He agreed that just having the personal blower on does not guarantee adequate ventilation. (Tr. 431) Whether it is adequate depends on the area the employee is working. (Tr. 432) He testified that, if *{redacted}* had used the blower, it would have provided sufficient ventilation. Indeed, he opined that there was ventilation in the trunk without the blower. Still, you want it on as a secondary measure. (Tr. 437)

There are also blowers that are part of the building that go on automatically when the lights are turned on at the beginning of the day. These blowers provide circulation throughout the areas of the bays. (Tr. 425-427) These blowers were operating properly on the day of the accident. (Tr. 426) McFarland also testified that, on several occasions, the CO told him that there was adequate natural ventilation in the facility. (Tr. 427)

Dr. Ted Yee

Dr. Lee is a physician, board certified in Occupational and Environmental Medicine. (Tr. 440-441) He identified his report in which he stated that he had been presented with no evidence suggesting an alternative cause of death other than argon asphyxiation. The report also stated that "No information has been presented to me that causes me to doubt the coroner of New Orleans Forensic Center's diagnoses of "Asphyxiation secondary to suffocation" and "Exposure to argon gas while working in the hold of a ship," by Dr. Samantha Huber, M.D. (Tr. 441, Ex. P-36, p.3) Dr. Lee cited several articles he relied on in coming to his conclusion. One of the articles, by Pragst and Strauch (Ex. P-37), related an incident where a 31 year old engineer died of argon asphyxiation. He entered a vessel and collapsed within 10 minutes. Although argon levels in the victim's blood were far below the dangerous limit, the article pointed out that the victim received 70 minutes of CPR which likely removed most of the argon gas. Dr. Lee found this particularly relevant because, even though no argon was found in *{redacted}* blood, he received CPR until the ambulance arrived. Based on this article, Dr. Lee concluded that, because *{redacted}* received CPR, the lack of argon in his blood did not negate the possibility of argon asphyxiation. (Tr. 447-449)

Dr. Lee noted that the deceased in the Pragst article (Ex. P-37) had argon gas in his

larynx, stomach and lungs. However, the autopsy report on *{redacted}* does not indicate that any gas was measured from the larynx, stomach or lungs. (Tr. 460-461) Dr. Lee also admitted to relying on an article by Ely and Hirsch (Ex. P-40) which stated that “Although all organs are ultimately affected by asphyxia, the brain is most sensitive to its effects.” (Tr. 462) There was no indication that the autopsy found anything unusual in *{redacted}* brain. (Tr. 463) He stressed, however, that he is not a pathologist and can’t render an opinion whether someone who suffered from asphyxia would have abnormalities in the brain. (Tr. 463)

According to Dr. Lee, when a person dies of a heart attack, the pathologist will note abnormalities in the heart, especially the coronary arteries. He saw no such reference in the autopsy report. (Tr. 477) Dr. Lee also observed that, although the MSDS for argon states that the gas can be fatal in high concentrations, lower concentrations can be fatal if the victim has breathing problems, such as asthma or heart disease, or is a smoker. (Tr. 471) However, there was no evidence that any of those criteria applied to *{redacted}* (Tr. 472)

Dr. Lee explained that diagnosis and causes of death are sometimes arrived at by “differential diagnosis” which is, in essence the exclusion of other diagnosis. This is the method he and the autopsy used to conclude that *{redacted}* died of argon asphyxiation. (Tr. 469, 481)

Dr. Lee also relied on an article in Alaska Face, which related an incident where a 22 year old male entered an oil pipe section in an attempt to modify an oxygen analyzer. The employee was found dead of argon asphyxiation. The article observed that the deceased might have been rendered unconscious immediately upon breathing argon that seeped into the pipe. This told Dr. Lee that contact with argon could immediately cause unconsciousness. (Tr. 454-455, Ex. P-39)

Dr. Lee noted that the door was 2.5 feet above the floor while *{redacted}* was welding about 1.5 feet above the ground. Because argon is heavier than air, it would collect below the lip of the door. Like water, the argon would fill up the bottom, spread out and move up. (Tr. 452-454)

Dr. Lee testified that it is very important for the pathologist to have correct information prior to rendering an opinion. (Tr. 473) He read that section of the autopsy that stated that *{redacted}* died due to “exposure to argon gas while working in the hold of the ship.” (Tr. 474,

Ex. P-7) He agreed that if the autopsy was wrong in finding that death occurred in the hold of the ship, the pathologist may reevaluate her conclusion. (Tr. 474)

Dr. William George

Dr. George was called by Respondent as its expert witness in toxicology. Dr. George is a pharmacologist and toxicologist and has a PhD in pharmacology. (Ex. R-16) He has over 300 publications. (Tr. 498) He has served as an expert witness hundreds of times. (Tr. 499) However, he is not an M.D. or a medical examiner and has never performed an autopsy. (Tr. 522, 523, Ex. R-16)

Dr. George explained that pharmacology is the science that deals with the effects of drugs on the body and the way the body deals with drugs. Toxicology is a sub-discipline of pharmacology and deals with, not only with the effects of drugs, but non-drug chemicals on the body with respect to adverse effects and the way the body deals with those drugs and non-drug chemicals. (Tr. 497-498) As a toxicologist, he does not give a diagnosis; rather he explains cause and effect. (Tr. 498) According to Dr. George, causation is the relationship between a drug and chemical whether or not the presence of the drug, the absorption of the drug, or the effects of the drug would have been the basis for the health effect. (Tr. 499)

Dr. George visited the site on November 4, 2009. His opinion is that argon would not have been in the vent trunk in sufficient concentration to have caused death. To cause death within a short period the concentration of argon would have had to have been greater than 80% and oxygen levels reduced to lower than 5%. (Tr. 501) Based on the Incident Report of the accident which indicated the maximum flow of argon, he opined that the amount of argon that would have been released would have been 26-30 cubic feet, which would have lowered the oxygen levels to 16-17%, not the 2-4% required for a quick knockdown. (Tr. 502) Dr. George explained that the records he reviewed indicated that the argon flowed at a rate of 48 cubic feet per hour. According to the facts given to him, *{redacted}* began setup at 8:45 a.m., took a break at 9:00, came back at 9:10 and between 9:10 and 9:15 completed a weld. He then left and came back and collapsed at 9:18. (Tr. 516-517) Thus, while he went in and out of the vent trunk, he was only in there for three to four minutes before he collapsed. (Tr. 517) However, he assumed

that *{redacted}* was exposed to the argon for the entire 33 minutes from the time of setup at 8:45 until collapse at 9:18. (Tr. 517, 526)

He also took into account that *{redacted}* might have had his face near the ground, close to the potential source of argon. He found it significant, however, that there was a total absence of argon in *{redacted}* blood. (Tr. 533, 539) In his opinion, the fact that the victim was given CPR does not affect his view that there should have been argon in his blood. (Tr. 543)

Dr. George further testified that although heavier than air, argon does not simply sink to the ground. Rather, when there is an employee moving inside a compartment, the argon mixes. (Tr. 521) He analogized the situation to that of a feather which, though heavier than air, will float like a feather drifting down where air movement will mix it. (Tr. 528) Dr. George testified that he did not examine the body, never diagnosed a patient, never performed an autopsy and never signed a death certificate. (Tr. 522-523) He pointed out that some of the medical examiner's information was wrong. For example, the medical examiner said that the accident occurred in the hold of a ship, while it actually occurred in the vent trunk. (Tr. 524)

Samantha Huber, M.D.

The sworn deposition testimony of Samantha Huber, M.D. ("Dr. Huber") commenced on March 25, 2010.

Exhibit 1 which accompanied Dr. Huber's deposition comprised her Curriculum Vitae, ("CV"). As pertinent, her CV revealed that she is (1) Board Certified in Forensic Pathology⁴, American Board of Pathology, (November 2004), (2) Board Certified in Combined Anatomic and Clinical Pathology⁵, American Board of Pathology, (July 2003), (3) Fellow National Association of Medical Examiners, (4) Fellow College of American Pathologists, (5) American Academy of Forensic Sciences, and (6) Louisiana State University health Science Center,

⁴A forensic pathologist is a physician who specializes in the examination of bodies when circumstances suggest that death was unnatural. The examination may include as assessment of the time of death and the cause of death. The use of laboratory tests may also be used to assist in the cause of death. *The American Medical Association, Encyclopedia of Medicine*, (1989).

⁵An Anatomic and Clinical Pathologist studies and evaluates disease and /or unnatural death using anatomic pathology (autopsy pathology), and the examination of body fluids and tissues through the use of laboratory methods. *Dorland's Illustrated Medical Dictionary, 28th edition*, (1994).

Assistant Professor, Department of Pathology.

On direct examination by Susan Desmond, Esquire, counsel for Respondent, Trinity Yachts, LLC, Dr. Huber testified that she been performing anatomic pathologies since 2003, and that she has been employed by the New Orleans Forensic Center as Coroner's Forensic Pathologist since 2006. (Deposition Testimony (DT) p. 9); that she had performed several autopsies where the suspected cause of death was argon poisoning "because [she had] had talked to the toxicologists in St. Louis on other cases about how to submit samples on this. (DT p. 13); that in those cases of suspected argon poisoning none of the toxicology results "had ***[come] back positive for argon;" (DT p. 15); that toxicology tests for argon poisoning "is not something *** tested for"; and that she consulted Christopher Long, who is "the doctor, forensic toxicologist in St. Louis" to whom she sent the sample. The samples to test for argon gas included "femoral blood, lung tissue and brain tissue as well as liver tissue ***." The results of the toxicology tests did not show the presence of argon in *{redacted}* tissue. (DT p. 16). From a histopathological standpoint Dr. Huber testified, there were no specific findings in the heart, aorta, lungs, thyroid, blood vessels, liver, gall bladder, kidney, adrenal glands, bone marrow or brain that showed the presence of argon. She also stated that there was nothing objective in the autopsy that could have given her a cause of death. (DT p. 17-23).

Dr. Huber further testified that since there were no objective findings from the autopsy as to an objective cause of death, other causes of death would have to be considered. She also testified that "given the amount of medical intervention that *{redacted}* had gotten, [she] didn't expect that there would be a positive argon gas. So I aimed at finding any other possibility other than having to rely on the history I was given." (DT p. 23-24). Thus, Dr. Huber relied on information and history provided by others such as co-workers, "medical records and from what doctors and nurses and EMT related back which included the "symptoms around the time of death, possible exposure to argon gas. From these sources, Dr. Huber learned that *{redacted}* "began to get nauseated, he vomited several times, he collaps[ed], be[came] unconscious, and receiv[ed] CPR." Upon arrival EMTs provided additional CPR and transported *{redacted}* to the hospital (DT p. 25-26).

Dr. Huber also testified that with respect to the level of argon that it would take to cause

asphyxiation is approximately a 20 percent oxygen level. With respect to *{redacted}* “considering he was able to talk, he was nauseated, he vomited, he got to the main deck of a ship,” the oxygen level was “around 20 percent.” (DT p. 27-28)

In response to a hypothetical which assumed that (1) *{redacted}* was working in a vent trunk “4' 9" wide, by 8' 2 1/4" tall, 4' 3" deep and is roughly 128 cubic feet, (2) the remainder of the ship was open, (3) *{redacted}* brought an argon line into the vent trunk, and (4) *{redacted}* was in the vent trunk for approximately three minutes, Dr. Huber stated that she believed that argon could be a cause of *{redacted}* death. Dr. Huber further stated that (1) she has “no reason to not believe the doctors at the hospital, not to believe the EMTs and not to believe the nurses and the medical records that the coworkers said that he stated he was feeling ill ***,” (2) she had no reason to not believe them, and (3) “[those symptoms - nausea and not feeling well] fit with the characteristics and signs and symptoms of having a slow , but definite simple asphyxiant. Dr. Huber further testified that she had “to rule out everything else, and that’s why it’s ruling it out by having a negative autopsy, negative tox and negative microscopy, but I have no reason not to believe what I read in the medical records.” “The fact is that people in the medical records have stated [that *{redacted}* told them that he felt nauseated or was not feeling well after entering the vent trunk] and “there’s no reason for a doctor to lie about the signs and symptoms because that’s how they treat a patient.” (DT p. 34-46).

Dr. Huber further stated that comparing basic toxicology on live individuals is not a problem. “Post-mortem toxicology is a whole different animal.” “There are changes in serology and toxicology that occur in a dead person that in a routine lab on live people is not an issue, post-mortem redistribution being one of them. The level that you have isn’t necessarily the level in the body on some basic toxicology. Argon gas, as in this case, you’d have to consider the possibility that a negative result is actually the result of someone who had extensive resuscitative efforts. Someone that was in the hospital that’s not really something they consider with a toxicology because the person’s alive. They still have their blood, they still have everything you can test, you can retest them again. It’s a little bit different when we’re talking about post-mortem toxicology.” (DT p. 43-44).

On cross examination by Dolores Wolfe, Esquire for the Secretary of Labor, Dr. Huber

testified that she has performed approximately 1,900 autopsies and that she reiterated that it was her opinion that *{redacted}* died from argon exposure because there was nothing else in his body to suggest otherwise, and that her supervisors supported her conclusions that *{redacted}* died from asphyxiation secondary and exposure to argon. (DT p. 49-56).

Discussion

Respondent stipulates that it is a corporation engaged in a business affecting commerce within the meaning of sections 3(3) and 3(5) of the Act, 29 U.S.C. §§652(3)(3) and (3)(5), and that it is an employer within the meaning of section 3(5) of the Act.

Before determining the merits of the alleged violations, two preliminary matters must be resolved.

A. Was the Vent Trunk an Enclosed Space

An “enclosed space” is defined, at 29 CFR §1915.4(q) as “any space, other than a confined space, which is enclosed by bulkheads and overhead. It includes cargo holds, tanks, quarters, and machinery and boiler spaces.”⁶

Trinity argues that the vent trunk was not an enclosed space. It points out that the vent trunk had a 3 foot square opening on one side and an 4’5” X 1’7” opening in the ceiling. Trinity relies on a decision by Judge Yetman in *Alexander G. McLaren*, 20 BNA OSHC 1978 (No. 03-0574 and 03-0758, 2004) where the Judge found that a fuel tank 6 six to eight feet deep, which was cut off at the top and therefore open to the air, was not an enclosed space. I am not persuaded.

In *Alexander G. McLaren*, the top of the tank was completely cut off and, therefore, could not be said to have been “enclosed.” Rather, I find that the configuration of the vent trunk is more akin to the tank in *Offshore Shipbuilders, Inc.*, 18 BNA OSHC 2172 (No. 97-0257, 2000). In that case, a ballast tank, approximately 12 feet x 13 feet x 19 feet was cited by the Secretary as a confined space. The tank had three openings, two 18-22 inch diameter holes in the deck for access, and a hole, approximately 10 feet by 18 inches running horizontally approximately 4 feet

⁶ A “confined space” is defined at 29 CFR §1915.4(p) as “a compartment of small size and limited access such as a double bottom tank, cofferdam, or other space which by its small size and confined nature can readily create or aggravate a hazardous exposure.”

off the ground. The Commission affirmed the judge, who found that the tank was an enclosed space and that the Secretary improperly cited the tank as a confined space.

I also note that Safety and Environmental Manager McFarland referred to the vent trunk an enclosed space. Trinity argues that McFarland was not applying a legal definition. While that may be true, terms such as “enclosed space” have specific and technical meaning to a safety and environmental manager. That he would use it to describe a location where a fatality occurred to an OSHA compliance officer during an investigation of that fatality is not without moment.

Finally, Trinity reiterates McFarland’s testimony that to require testing of the vent trunk as an enclosed space would require atmospheric testing of a bathroom every time an employee enters. However, McFarland testified that a bathroom was “most definitely” an enclosed space. (Tr. 422) As such, it might require pre-entry testing if it contains or previously contained “liquids, gases, or solids that are toxic, corrosive, or irritant.” 29 C.F.R. §1915.12(a)(1)(iii).

Accordingly, I find that the vent trunk was properly cited as an enclosed space.

B. Cause of Death and the Expert Testimony

The Law

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 951 F.2d 1128 1131 (9th Cir. 1992), the Ninth Circuit excluded the expert testimony as it was not based upon the scientific technique generally accepted as reliable within the scientific community, (*Frye Test - Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir 1992.), (“*Daubert 1*”). *Daubert 1* was appealed to the United States Supreme Court.

In its landmark decision governing the admissibility of scientific expert witness testimony, the Supreme Court held that the admissibility of such scientific expert testimony is governed by Rule 702 of the Federal Rules of Evidence (FRE) which should be liberally construed. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 113 S.Ct. 2786 (1993) (“*Daubert 2*”). The Court also stated that Rule 702 FRE superceded the “Fry Test” - admissibility of expert testimony excluded unless the “technique” earned “genuine acceptance” as reliable in the

relevant scientific community. *Fry v. United States*, 293 at 1014.

Rule 702 FRE provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

In *Daubert 2*, the Supreme Court obligated trial judges, which would include Administrative Law Judges, to act as gatekeepers/factfinders to “ensure that any all scientific testimony or evidence admitted is not only relevant but reliable.” 113 *Daubert2* at 2786; that the factfinder has broad discretionary authority to determine whether the expert is qualified by “knowledge, skill, experience, training or education.” *Daubert2* at 113 S.Ct. 2791, n.2. and *General Electric v. Joiner*, 118 S. Ct. 512 (1997); that the factfinder enjoys “broad latitude” to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable. *Daubert2* at 113 S.Ct. 2795. In *Kimbo Tire Co. v. Carmichael*, 119 S.Ct 1167, 1175-1176 (1999), (“*Kimbo*”) the Supreme Court reasoned that Judge’s fact finding role applied not only to scientific testimony, but to all expert testimony.

As a result of its holding, the Supreme Court remanded *Daubert 1* back to the Ninth Circuit to consider the admissibility of the expert’s testimony under Rule 702 FRE. In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311, 1315 (9th Cir. 1995), (“*Daubert 3*”), the Ninth Circuit excluded the expert testimony as “the soundness of [the expert’s] methodology underlying” his testimony was not reliable and his reasoning not substantiated by the facts of the case.

Differential Diagnosis

Reference Manual on Scientific Evidence, second edition, 444 (Federal Judicial Center 2000) defines the term “differential diagnosis in its traditional sense, that is, referring to the diagnosis of disease, and refers to the process of identifying external causes of diseases and conditions as ‘determining cause,’ ‘determining external cause,’ or some similar phrase, as the circumstances warrant.”

In *Kudabeck v. Kroger Co.*, 338 F3d 856, 860- 861 (8th Cir. 2003), the Eighth Circuit described a differential diagnosis in the following manner. “In performing differential diagnosis,

a physician begins by ‘ruling in’ all scientifically plausible causes of the [individual’s] injury [or death]. The physician then ‘rules out’ the least plausible causes of injury [or death.] until the most likely cause remains.”

A number of Federal courts of appeal have concluded that a medical opinion relating to causation based upon a proper differential diagnosis is sufficiently reliable to satisfy *Daubert*.² *Accord, Ambrosini v. Labarraque*, 101 F.3d 129, 140-141 (D.C. Cir. Cir 1996), *Zuchowicz v. United States*, 140 F.3d 381, 385-387 (2d Cir. 1998) and, *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 145, 156-157 (3d Cir. 1999). The Fifth Circuit in *Moore v. Ashland Chem., Inc.*, 151 F.3d 269, 277-279 (5th Cir. 1998) discussed a Judge’s gatekeeper function under *Daubert* when determining whether an expert’s findings and conclusions are based upon the scientific method and are therefore, reliable. In *Moore*, the court concluded that based upon the *Daubert* regime, the expert’s testimony regarding causation was not reliable as it was based upon incorrect assumptions.

I now turn to the record evidence in this case and apply the Supreme’s directives in the *Daubert* trilogy to the facts in this case.

Expert Witness Testimony:

LABOR EXPERT:

Dr. Ted Yee testified that *{redacted}* died from argon poisoning. Dr. Yee primarily relied upon scientific data - case studies. A case study report is merely a physician’s chronicle of a particular patient. Case studies normally do not “rule out” alternative causes of the patient’s condition/cause of death. They may also lack analysis, may omit salient facts, and lack controls.” Causation attribution based on case studies must be regarded with caution.” *Reference Manual on Scientific Evidence*, second edition, 475 (Federal Judicial Center 2000) Given the *Reference Manual* ‘s admonition regarding the use of case studies and the physician’s lack of expertise in argon poisoning as the cause of death, I have given his testimony less weight than that of Dr. Huber.

RESPONDENT’S EXPERT

Dr. William George Dr. George was called by Respondent as its expert witness in

toxicology. Dr. George is a pharmacologist and toxicologist and has a PhD in pharmacology. (Ex. R-16) However, he is not an M.D. or a medical examiner and has never performed an autopsy. (Tr. 522, 523, Ex. R-16)

Dr. George testified that, in his opinion, there was not enough argon in the vent trunk to be the cause of death. He testified that, based on the Incident Report, the amount of argon would have reduced the oxygen level in the vent trunk to 16-17% rather than the roughly 5% necessary to cause a quick knockdown. In reaching his conclusion, he considered that *{redacted}* worked close to the floor and that his normal movements in the vent trunk would have stirred the air sufficiently to keep the argon from accumulating only on the ground.

Dr. George also found it significant that there was a total absence of argon in *{redacted}* blood. That CPR was administered did not alter his opinion that some argon should have been found. However, Dr. George admitted that he did not examine the body and offered no alternative cause of death.

INDEPENDENT EXPERT:

Samantha Huber, M.D. testified that she has been employed by the New Orleans Forensic Center as Coroner's Forensic Pathologist since 2006; that she had performed several autopsies where the suspected cause of death was argon poisoning; that in those cases of suspected argon poisoning none of the toxicology results "had ***[come] back positive for argon;" that toxicology tests for argon poisoning "is not something *** [one] would normally test for; "that the toxicology [report] did not show the presence of argon *** in *{redacted}* tissue;" that since there were no objective findings from the autopsy as to an objective cause of death, other causes of death would have to be considered; that "given the amount of medical intervention that *{redacted}* had gotten, [she] didn't expect that there would be a positive argon gas; that to try and determine a cause of death for *{redacted}* she relied on information and history provide by others such as co-workers, "medical records and from what doctors and nurses and EMT related back which included the "symptoms around the time of death, possible exposure to argon gas; that from the medical records, she learned that *{redacted}* was nauseated and vomited several times, collapsed, became unconscious, received CPR, and was taken to the hospital; that she also testified that with respect to the level of argon that it would take to cause asphyxiation is approximately a 20 percent oxygen level; that with respect to *{redacted}* "considering he was

able to talk, he was nauseated, he vomited, he got to the main deck of a ship,” the oxygen level was “around 20 percent.”

Significantly, Respondent’s expert, Dr. George, testified that he estimated that the oxygen levels in the vent trunk were 16-17%, which is below the 20% level that Dr. Huber testified can cause asphyxiation. I find that this evidence supports Dr. Huber’s conclusions.

In performing her differential diagnosis, Dr. Huber followed normal procedures in conducting *{redacted}* autopsy. Since there were no objective findings from the autopsy as to an objective cause of death, she considered other causes of death based upon information and history provided by co-workers, medical records, and symptomatology (nausea and vomitus). Based upon the forgoing, it is my opinion that Dr. Huber’s medical conclusion regarding the cause of death of *{redacted}* based upon her differential diagnosis is reliable to satisfy *Daubert* and its progeny. Therefore, I give more weight to her testimony and conclusion than to the other expert testimony in this case.

Accordingly, I find that the evidence establishes that *{redacted}* died of asphyxiation due to his exposure to argon⁷.

The Alleged Violations

To establish a violation of an OSHA standard, the Secretary must establish that: (1) the standard applies to the facts; (2) the employer failed to comply with the terms of that standard; (3) employees had access to the hazard covered by the standard, and (4) the employer could have known of the existence of the hazard with the exercise of reasonable diligence. *Atlantic Battery Co.*, 16 BNA OSHC 2131, 2138 (No. 90-1747, 1994).

1. Item 1 of the Citation, as amended alleges that Trinity violated 29 CFR §1915.12(a)(1)(iii)⁸ in that:

⁷ I recognize that certain of Dr. Huber’s assumptions might have been erroneous. For example, she assumed that the accident occurred in the hold of the ship rather than the vent trunk. I find that, for purposes of diagnosis, this is largely a distinction without substance. Also, Respondent disputes the testimony of the medical personnel that arrived at the accident site insofar as they stated that *{redacted}* was nauseous and vomiting. However, I find the official medical records to be reliable.

⁸ **§1915.12 Precautions and the order of testing before entering confined and enclosed spaces and other dangerous atmospheres .**

(a) Oxygen content. (1) The employer shall ensure that the following spaces are visually inspected and tested by a competent person to determine the atmosphere's oxygen content prior to initial entry into

The employer did not ensure that the starboard vent trunk space on the TO48 hull was visually inspected and tested by a competent person to determine the atmosphere's oxygen content prior to the employee entering the space. The starboard vent trunk on the TO48 hull contained argon. This condition exposed the employee to an asphyxiation hazard

Under the cited standard, the employer is required to test the atmosphere for oxygen content prior to the employee's *initial entry* into a space "that contain or have contained liquids, gases, or solids that are toxic, corrosive, or irritant." There is no evidence that, prior to {redacted} initial entry, the vent trunk ever contained any liquids, gases, or solids that are toxic, corrosive, or irritant. To the contrary, the evidence is clear that the argon was brought into the vent trunk by {redacted}. The evidence also demonstrates that the vent trunk, which had openings in the ceiling and smaller openings in the floor, contained some natural ventilation enhanced by blowers in the building that were activated every morning when the lights were turned on. Indeed, McFarland and the CO entered the vent trunk together during the inspection and neither had any difficulty breathing.

In her brief, the Secretary contends that there was no atmospheric testing prior to {redacted} entry into the vent trunk after he converted his equipment to DC and reentered the vent trunk after the 9 a.m. break. This is true. However, the fact remains that the Secretary has failed to establish there was a need to test the atmosphere prior to {redacted} *initial* entry into the vent trunk at 8:45 a.m. Rather, the Secretary is arguing that Trinity should have tested the atmosphere upon {redacted} reentry into the vent trunk after his break. Indeed, there is a standard particularly applicable to this situation. 29 CFR §1915.15(b) states:

b) Alteration of existing conditions. When a change that could alter conditions within a tested confined or enclosed space or other dangerous atmosphere occurs, work in the affected space or area shall be stopped. Work may not be resumed until the affected space or area is visually inspected and retested and found to comply with Sec. Sec. 1915.12, 1915.13, and 1915.14 of this part, as applicable.

Note to paragraph (b): Examples of changes that would warrant the stoppage of work include: The opening of manholes or other closures or the adjusting of a valve regulating the flow of hazardous materials.

the space by an employee:

* * *

(iii) Spaces and adjacent spaces that contain or have contained liquids, gases, or solids that are toxic, corrosive, or irritant

In the preamble to the standard, published upon adoption, the Secretary made clear the difference between initial testing and the duty for subsequent testing of a space:

The duty to test as conditions warrant is imposed by Sec. 1915.12 and Sec. 1915.15, in combination. These two sections require that, in all cases, testing of the space must be conducted before employees enter the space and as often as necessary to monitor conditions within the space as work progresses. Obviously, any change in conditions that could affect the designation of a space as "Safe for Workers" require reinspection, retesting, and recertification of the space by the competent person or Marine Chemist.

Therefore, for the purposes of this rule, the term "initial entry" is interpreted by OSHA to mean the first entry into a space. The time period between pre-entry testing and initial entry may vary. However, the space must be reinspected, retested, and recertified any time conditions in the space might have become unsafe for employees.

59 FR 37831-37832 (July 25, 1994)

Significantly, the note to paragraph (b) specifically includes "the adjusting of a valve regulating the flow of hazardous material" as a particular example of a change that would require retesting under §1915.15(b). *{redacted}* turning the valve controlling the argon and beginning its flow is the very incident that the Secretary argues required testing under §1915.12(a).

Where a standard is susceptible to different interpretations, the Commission will consider statements made in the preamble to the standard as the most authoritative guide to the standard's meaning. *Safeway Store No. 914*, 16 BNA OSHC 1504, 1511 (No. 91-373, 1993); *American Sterilizer Co.*, 15 BNA OSHC 1476, 1478 (No. 86-1179, 1992). I find that the preamble clearly demonstrates that the reentry of an employee into an enclosed space after a break is not considered an "initial entry" under §1915.12(a), but rather a reentry covered under §1915.15(b).

This raises the issue of whether a *sua sponte* amendment under Federal Rule of Civil Procedure (FRCP) 15(b)⁹ is appropriate. I find that an amendment would not be appropriate.

⁹ FRCP 15(b) provides:

(b) AMENDMENTS TO CONFORM TO THE EVIDENCE. When issues not raised by the pleadings are tried by express or implied consent of the parties, they shall be treated in all respects as if they had been raised in the pleadings. Such amendment of the pleadings as may be necessary to cause them to conform to the evidence and to raise these issues may be made upon motion of any party at

Post-hearing amendments are permissible under Federal Rule of Civil Procedure 15(b) if the parties "squarely recognized" that they were trying the unpleaded issue and either expressly or implicitly consented to trial of the unpleaded issue. *Lancaster Enterprises, Inc., d/b/a Orbit Roofing Co.*, 19 BNA OSHC 1033, 1034 (No. 97-0771, 2000); *McWilliams Forge Co.*, 11 BNA OSHC 2128, 2129-30 (No. 80-5868, 1984). The test for determining trial by consent is whether the parties clearly knew that the evidence was directed toward an unpleaded issue. *Safeway Store No. 914*, 16 BNA OSHC 1504, 1516 (No. 91-373, 1993). Amendments are also permissible where they merely add an alternative legal theory, but do not alter the essential factual allegations of the citation. *A.L. Baumgartner Constr.*, 16 BNA OSHC 1995, 1997 (No. 92-1022, 1994) (affirming judge's *sua sponte* amendment).

It was and, as of the time of the submission of her brief, remains the position of the Secretary that any introduction of argon into the atmosphere required testing upon *initial* entrance into the vent trunk. As noted, the Secretary erroneously argues that *{redacted}* reentrance into the vent trunk after the break constituted an initial entry. At the hearing, there was some testimony, adduced mostly by the Secretary, regarding whether or when *{redacted}* turned on the valve to the argon or whether the argon located inside the copper pipe was sufficient to cause asphyxiation. (*e.g.* Tr. 49-52, 62, 76-77, 85, 86, 90, 142, 251, 254, 257-259, 262, 328) However, implied consent to the trial of an unpleaded issue is not established merely because evidence relevant to that issue was introduced without objection. At least it must appear that the parties understood the evidence to be aimed at the unpleaded issue. *McWilliams Forge Co.*, 11 BNA OSHC 2128, 2129-30 (No. 80-5868, 1984). In its brief, Trinity argues only that at the time *{redacted}* first entered at 8:45 a.m. there was no reason to suspect that there was anything in the atmosphere of the vent trunk that required testing. Clearly, Trinity did not recognize that it was trying whether subsequent events required retesting of the atmosphere when *{redacted}* reentered

any time, even after judgment; but failure so to amend does not affect the result of the trial of these issues. If evidence is objected to at the trial on the ground that it is not within the issues made by the pleadings, the court may allow the pleadings to be amended and shall do so freely when the presentation of the merits of the action will be subserved thereby and the objecting party fails to satisfy the court that the admission of such evidence would prejudice the party in maintaining the party's action or defense upon the merits. The court may grant a continuance to enable the objecting party to meet such evidence.

the vent trunk later that morning. Indeed, the issue is in substantial dispute. (*Compare* Tr. 85-86, 211, 337-338, 383-384) It is possible that, had Respondent realized that they were being tried under 29 CFR §1915.15(b), they would have adduced evidence in their defense¹⁰.

I also find that that to allow an amendment would raise substantial factual issues not included in the citation. The citation, as amended, plainly charges Trinity for failing to test the atmosphere in the vent trunk “prior to the employee entering the space.” Read in conjunction with the cited standard, which applies to the “initial” entry of an employee, it is clear that the citation did not raise factual issues concerning any potential change of atmosphere after *{redacted}* left the vent trunk and reentered it. Therefore, to permit an amendment at this time would alter the essential factual allegations of the citation

Accordingly, on this record, I cannot find that Trinity either explicitly or implicitly consented to the trial of the issues central to an alleged violation of 29 CFR §1915.15(b). The item is vacated.

2. Citation 1, Item 2 of the Citation alleges a violation of 29 CFR §1915.12(d)(2)(ii)¹¹ on the grounds that:

The employee working in the starboard side vent trunk on TO48 was not trained in the hazards associated with working in the enclosed space with argon. This condition exposed the employee to an asphyxiation hazard.

Unlike the previous item, the standard cited here does not distinguish between the initial entry and subsequent entries into an enclosed space. Rather, whenever an employee is required to enter an enclosed space where a hazardous substance may be introduced, the employer is

¹⁰ Indeed, that *{redacted}* did not turn on his blower may be evidence that he had not yet started welding.

¹¹ **§1915.12 Precautions and the order of testing before entering confined and enclosed spaces and other dangerous atmospheres .**

* * *

(d) Training of employees entering confined and enclosed spaces or other dangerous atmospheres.
* * *

(2) The employer shall ensure that each employee who enters a confined space, enclosed space, or other areas with dangerous atmospheres is trained to:
* * *

(ii) Anticipate and be aware of the hazards that may be faced during entry;

required to be trained to anticipate and be aware of the hazards that may be faced during entry. Here, it is undisputed that *{redacted}* worked with argon in an enclosed space. It is also undisputed that, during the work day, there would be breaks or other reasons why he may need to leave the enclosed space and reenter. So viewed, whether *{redacted}* actually began welding prior to his accident is irrelevant. What is relevant is that the preconditions to the requirements of the standard were met as a consequence of *{redacted}* regular work activities. Therefore, the issue to be resolved is whether *{redacted}* was properly trained to anticipate and be aware of the hazards that he might encounter when entering an enclosed space that might contain argon. I find that the Secretary established the violation.

{redacted} supervisor, Charlie Nguyen testified that he never actually read the MSDS on argon, but passed it when walking through the office. (Tr. 111-112). He also testified that Trinity would hand out to a small handbook that discussed the chemicals employees would encounter on the job. Although employees were given 15-30 minutes to read the handbook, they generally did not read it because they expected the subject to be covered during safety meetings. (Tr. 125-127) Significantly, when questioned regarding his knowledge of argon, Nguyen testified that it was some kind of gas that was used to make welds. (Tr. 128) He did not know its weight, but was aware that a respirator would not provide protection. (Tr. 128) Although he was aware that inhaling it could make one sleepy, he did not indicate any knowledge that the reason for that effect was oxygen deprivation caused by the displacement of oxygen by the heavier argon. (Tr. 129) His solution for this problem, and his instructions to his subordinates, of which *{redacted}* was one, was to go to the bathroom, splash water on your face, then get a blower to get the air out. (Tr. 131, 154)

The MSDS for argon states that says that in high concentrations, inhalation may cause asphyxiation. It further explains that symptoms may include loss of mobility, unconsciousness and warns that the victim may not be aware of asphyxiation. (Tr. 224, Ex. P-6) Critically, Nguyen was not aware that this “tiredness” being experienced when exposed to argon was actually being caused by asphyxiation.

CO Harrington pointed out that Trinity’s Safety Meeting Training Session Minutes, (Ex-P-18), states that "All argon lines shall be pulled out of the holes that the employee is working during break, lunch, end of day." The CO found this insufficient because it is not enough to simply tell employees that a substance is hazardous. Rather, the training must get into the

specific hazards and symptoms involved. (Tr. 231) The CO testified that, during his inspection, he found nothing that, in his view, would have satisfied the standard. (Tr. 230)

However, the CO admitted that he made no inquiries about *{redacted}* orientation at the time of hire. He didn't speak to the welders about what they knew about argon and didn't ask Safety Manager McFarland about the specifics of the company training program on argon. (Tr. 281) Moreover, he did not talk to either Nguyen or Meyers about welder safety training. (Tr. 292) Moreover, the CO testified it was not until the week of the hearing that he saw a training video shown to Trinity employees about the hazards of argon, and was not aware that they are given a written test on the video. (Tr. 282-283)

Safety manager McFarland testified that every MSDS is available to employees and that, if they have any doubt about a product they are using, he would go over it with him. (Tr. 341) Also, an employee just needs to tell his supervisor that he wants to see the MSDS and he will read it over with him. (Tr. 344-345) However, he could not verify that *{redacted}* ever saw the MSDS for argon. (Tr. 342) Further, on cross-examination, he admitted that the Trinity program doesn't talk specifically about argon but the danger of gas in general. They leave it up to employees to read the MSDS. (Tr. 417, 430) Significantly, *{redacted}* had difficulty reading and was not able to read an MSDS. (Tr. 229)

To establish noncompliance with a training standard, the Secretary must show that the cited employer failed to provide the instructions that a reasonably prudent employer would have given in the same circumstances. *N & N Contractors, Inc.* 18 BNA OSHC 2121, 2125 (No. 96-0606, 2000); *See El Paso Crane and Rigging Co.*, 16 BNA OSHC 1419, 1424 (No. 90-1106, 1993). If the employer rebuts the allegation of a training violation "by showing that it has provided the type of training at issue, the burden shifts to the Secretary to show some deficiency in the training provided." *N & N Contractors, Inc.* 18 BNA OSHC at 2125; *Atlantic Battery Co.*, 16 BNA OSHC 2131, 2176-77 (No. 90-1747, 1994).

I find that the Secretary established the violation. The evidence establishes that Trinity has a training program that provides its employees with some basic information about the danger of working with various gases. The evidence also demonstrates that the MSDS for argon was available for employees to read and that Respondent made its supervisors available to employees who had any questions about working with argon or other safety matters. The problem with Trinity's approach is that rather than having the employer responsible for providing the

necessary information to the employee, it shifted the burden to the employee to seek out the information necessary to anticipate and be aware of the hazards of working with argon. However, the standard plainly placed the duty upon the employer to “ensure that each employee who enters a confined space, enclosed space, or other areas with dangerous atmospheres is trained to . . . anticipate and be aware of the hazards that may be faced during entry.” Merely giving employees instructions about the hazard of gases in general, posting an MSDS for argon with the hope that they might read it, and making supervisors available to ask questions the employee might have does not fulfill the employer’s duty to “ensure” that employees are trained to anticipate and be aware of the hazards that maybe faced during entry. The flaw in Trinity’s system is underscored by supervisor Nguyen’s own lack of knowledge about the dangers of argon. In his view, inhaling the gas would make an employee sleepy, and could be remedied by having the employee splash water on his face. As noted, *supra*, he expressed no awareness that this “sleepiness” was caused by oxygen deprivation, requiring immediate exit from the enclosed space.

In *Pressure Concrete Constr. Co.*, 15 BNA OSHC 2011 (No. 90-2668, 1992), the employer was cited with an analogous standard, 29 CFR §1926.21(b)(2), which requires that the “employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.” In that case, employees working in a sewer pipe drowned in a flood caused by rain. The evidence established that, while the employees were instructed to leave when it began to rain, their training failed to imbue them with a sense of urgency and they thought that they could “get everything cleaned up” before they left. Therefore, they did not understand the risk of flooding and the necessity to exit quickly. Had the employees ceased work immediately when the rain began, they would have been out of the storm sewer before the inflow of water became dangerous. The Commission found that Pressure Concrete's failure to give its employees instructions that were adequate to enable them to recognize and avoid the conditions that occurred rendered meaningless any argument that the conditions were not foreseeable.

Pressure Concrete presents a close analogy to the situation here. An employee’s belief that argon was merely making him sleepy, without an understanding that he was actually

suffocating, could lull an employee so affected into believing that he could continue working for a few more seconds, with fatal results. Significantly, Nguyen was **{redacted}** supervisor¹².

Also of significance is that Nguyen did not understand the fatal potential of exposure to argon. Under Trinity's safety plan, when an employee has a question about a gas, the employee is expected to have the question resolved by a supervisor. Clearly, any employee, including **{redacted}**, asking Nguyen about the hazards associated with argon would be given potentially fatally incorrect information.

Trinity's failure to impart to its employees the knowledge to enable them to be aware of and anticipate the hazards associated with argon was further demonstrated when two employees entered the vent trunk to rescue the downed employee without using an airline respirator which is required by the MSDS. (Tr. 371- 372, Ex. P-6, p.1)

An employer's instructions must be "specific enough to advise employees of the hazards associated with their work and the ways to avoid them," *O'Brien Concrete Pumping*, 18 BNA OSHC 2059, 2061, 1999 (No. 98-0471, 2000); *El Paso Crane and Rigging Co.*, 16 BNA OSHC 1419, 1425 nn. 6 & 7 (No. 90-1106, 1993). Clearly, Trinity's instructions to its employees, including **{redacted}**, fell short of this standard.

The violation was properly characterized as serious. As demonstrated by the fatality here, the evidence conclusively establishes that the failure to properly train employees in the recognition and avoidance of hazards associated with dangerous substances can likely result in death or serious physical harm.

The Secretary proposes a \$4500 for this violation. In assessing penalties, the Commission must give due consideration to the employer's prior history and good faith, the size of the employer's business, and the gravity of the cited violations. 29 U.S.C. §666(j); *S&G Packaging Co.*, 19 BNA OSHC 1503, 1509 (No. 98-1107, 2001) The CO testified that, when proposing the penalty, Trinity was not given any credit for good faith because a fatality was involved. Also, with approximately 800 employees, Trinity is considered a large employer and, therefore, was given no credit for the size. However, because it had no serious violations issued to them within the past three years, the Secretary granted a credit for a good safety history. Finally, I find the gravity of the violation to be high. The failure to adequately train employees in the nature and

¹² Nguyen did also tell them to ventilate the area. The crucial point here, however, is that Nguyen did not tell employees that they were suffocating, only that they were made sleepy.

dangers of argon significantly increased the likelihood that they would suffer overexposure and, as was the case here, death. Accordingly, I find the \$4500 penalty proposed by the Secretary to be appropriate and the proposal is assessed.

3. Citation 1, Item 3 alleges that Respondent violated 29 CFR §1915.51(f)(1)¹³ on the grounds that:

The employer failed to ensure that mechanical ventilation was being used in the enclosed starboard vent trunk on the TO48 hull. This condition exposed the employee to an asphyxiation hazard.

The Secretary asserts that *{redacted}* failure to use the blower on the day of the accident constitutes a violation of the cited standard. While not disputing that the blower should have been used, Trinity asserts that, despite exercising reasonable diligence, it could not have known of *{redacted}* failure to use the blower. Respondent further asserts that, even if the Secretary made a *prima facie* showing of knowledge, the record establishes that *{redacted}* failure to use the blower was a result of unpreventable employee misconduct.

Under well-established Commission precedent, the Secretary bears the burden of proof of each element of a violation, including a showing that the employer had actual or constructive knowledge of the cited conditions. *E.g., Access Equip. Sys., Inc.*, 18 BNA OSHC 1718, 1720, (No. 95-1449, 1999). The Secretary satisfies her burden of showing knowledge by establishing that the cited employer knew, or with the exercise of reasonable diligence could have known, of the violative condition. *United States Steel Corp.*, 12 BNA OSHC 1692, 1699 (No. 79-1998, 1986). The actual or constructive knowledge of a supervisor can be imputed to the employer. *E.g., Dover Elevator Co.*, 16 BNA OSHC 1281, 1286 (No. 91-862, 1993). An employee, such as a lead man, who has delegated authority over other employees, may be considered a supervisor for the purposes of imputing knowledge. *Propellex Corp.*, 18 BNA OSHC 1677, 1680 (No. 96-265, 1999) Therefore, the Secretary establishes a *prima facie* showing of knowledge by proving

¹³ **§1915.51 Ventilation and protection in welding, cutting and heating.**

* * *

(f) General welding, cutting, and heating. (1) Welding, cutting and heating not involving conditions or materials described in paragraph (c), (d) or (e) of this section may normally be done without mechanical ventilation or respiratory protective equipment, but where, because of unusual physical or atmospheric conditions, an unsafe accumulation of contaminants exists, suitable mechanical ventilation or respiratory protective equipment shall be provided.

that a supervisory employee was responsible for the violation. *See H.E. Wiese, Inc.*, 10 BNA OSHC 1499, 1505, (No. 78-204, 1982) (consolidated), *aff'd per curiam*, 705 F.2d 449 (5th Cir. 1983). Here, it is undisputed that leadman Nguyen was the supervisor of the employees and was responsible for directing the employees, handing out assignments and checking that employees took the proper safety measures. (Tr. 37-38, 99, 139,145) Therefore, as part of his job, it was Nguyen's responsibility to ensure that **{redacted}** used proper safety measures, including appropriate mechanical ventilation. Accordingly, we find that the Secretary made a prima facie showing of knowledge.

To establish the "unpreventable employee misconduct" defense, the employer must rebut the Secretary's showing of knowledge by proving: (1) that it has established work rules designed to prevent the violation, (2) that it has adequately communicated these rules to its employees, (3) that it has taken steps to discover violations, and (4) that it has effectively enforced the rules when violations are discovered. *E.g., Precast Services, Inc.*, 17 BNA OSHC 1454, 1455, (No. 93-2971, 1995), *aff'd without published opinion*, 106 F.3d 401 (6th Cir. 1997).

The evidence is undisputed that Trinity issued a personal blower to **{redacted}** that he used regularly to ventilate the area in which he was working. (Tr. 91) However, for some unexplained reason, **{redacted}** did not hook up his blower on the day of the accident. (Tr. 233, 358, Stipulation #15) These personal blowers were not the only artificial ventilation at the worksite. Rather, there were blowers in the building that would turn on automatically every morning when the lights were switched on. (Tr. 427) The evidence suggests that, had **{redacted}** used his blower, it would have provided ventilation sufficient to have eliminated the argon hazard in the vent trunk. (Tr. 305, 437)

These personal blowers were not purchased by the employees but were issued to them by Trinity. (Tr. 425) The blowers were required to be used when welding. Trinity's "Welding and Cutting Practices Manual" states that "local exhaust ventilation shall consist of portable blowers or air movers to be placed by the welder or burner as close as practical to the door." (Ex. P-2, p.6 at 5.34) Nguyen testified that he would remind **{redacted}** every day to use his blower and **{redacted}** would reply, "I know Charlie." (Tr. 145) Nguyen checked on **{redacted}** regularly and he always had his blower. Indeed, he could not remember any time when **{redacted}** did not use his blower while welding. (Tr. 155) Nguyen remembered specifically telling **{redacted}** to use his blower on the day of the accident. (Tr. 47) Moreover, Nguyen checked on **{redacted}** during his

earlier assignment, before he entered the vent trunk, and he was using his blower. (Tr. 99)
Nguyen also testified that employees who failed to use their blowers were disciplined. (Tr. 166)

Also relevant here are the time frames involved. *{redacted}* entered the vent trunk at 8:45 to prepare for work and took a ten minute break at 9:00 a.m. He returned to the vent trunk at 9:10 and was found unconscious at 9:18 a.m. Moreover, before allowing *{redacted}* to begin work, he reminded him to use his blower. For Nguyen to have discovered *{redacted}* failure to use his blower within the little over half-hour he was working in the vent tent, including break, would have required almost constant oversight. However, An employer is justified in placing a great deal of reliance on the judgment of highly experienced and trained employees with good safety records *Connecticut Light & Pwr. Co.*, 13 BNA OSHC 2214, 2219 (No. 85-1 118, 1989); *Cerro Metal Products*, 12 BNA OSHC 1821, 1825, (No. 78-5 159, 1986). The fact that *{redacted}* was supervised does not mean that his supervisor must constantly watch him perform his duties. *Cerro Metals* 12 BNA OSHC at 1825.

The record demonstrates that *{redacted}* was a highly experienced employee with a good safety record. He was trained to use his blower, regularly reminded to use his blower, including on the day in question, used the blower earlier in the day, and had no record of not using his blower. Therefore, there was nothing deficient in Nguyen not conducting an almost immediate inspection of *{redacted}* worksite to ensure that *{redacted}* was using his blower.

The Secretary argues that Trinity was deficient in training employees to use mechanical ventilation. She argues that the work rule failed to identify what type of blower to use and where to put it. Furthermore, both Nguyen and McFarland were unfamiliar with Trinity's safety rules. It is not enough, she argues, to show that they have written safety documents. The employer must also demonstrate that the specific work rule that would have prevented the incident was communicated to the employee.

However, the record demonstrates that Nguyen, who supervised *{redacted}*, was trained to place the blower as close as possible to the door. (Tr. 150) Also, every employee was issued a blower. Because the employees were issued blowers by Trinity, it was not necessary to train them on what type of blower to use. Moreover, the record is clear that Nguyen knew that Trinity safety rules required the use of blowers and that he regularly reminded his employees of the requirement.

The Secretary also argues that Trinity's supervision was deficient and that, with

reasonable diligence, *{redacted}* failure to use his blower would have been discovered. The Secretary points out that the area where *{redacted}* was working was not remote and that, in the hour before the accident, at least two supervisors were on the vessel. (Tr. 107) According to the Secretary, had anyone passed the vent truck they could have easily seen whether *{redacted}* was using the blower and had it in its proper location.

I don't agree. While the vent trunk was not in a remote location, it was a compartment with a door only three foot square. Unless there was a specific reason to look inside, it is not reasonable to expect a supervisor, who may be hurrying to another area of the site, to look inside every compartment or area of the yacht he is passing, which is already under the jurisdiction of the lead man, to check for every possible safety violation. As previously noted, the fact that *{redacted}* was supervised does not mean that his supervisor was required to constantly watch him perform his duties. Indeed, as noted *supra* at note 9, it is possible that *{redacted}* did not turn on his blower because he had not yet even started welding.

On this record, I find that Trinity established the unpreventable employee misconduct defense. Accordingly, Citation 1, item 3 is vacated.

ORDER

Based upon the foregoing findings of fact and conclusions of law, it is **ORDERED** that

- (1) Citation 1, item 1 for a violation of 29 CFR §1915.12(a)(1)(iii) is **VACATED**;
- (2) Citation 1, item 2 for a violation of 29 CFR §1915.12(d)(2)(ii) is **AFFIRMED** and a penalty of \$4500 is **ASSESSED**;
- (3) Citation 1, item 3 for a violation of 29 CFR §1915.51(f)(1) is **VACATED**.

SO ORDERED.

/s/
The Honorable G. Marvin Bober
U.S. OSHRC Judge

Dated: 22 FEB 2011

Washington, D.C.