

**THIS CASE IS NOT A FINAL ORDER OF THE REVIEW COMMISSION AS IT IS
PENDING COMMISSION REVIEW**

**UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION**

Secretary of Labor,

Complainant,

v.

Associated Underwater Services,

Respondent,

Piledrivers Local Union 2396,

Authorized Employee Representative.

OSHRC DOCKET NO. 07-1851

Appearances:

Patricia Drummond, Esq., Office of the Solicitor, U.S. Department of Labor, Seattle, Washington
For Complainant

Erica Krikorian, Esq., Janis Puracal, Esq., Bullivant, Houser, Bailey, P.C., Seattle, Washington
For Respondent

Leiter Hockett, Senior Representative, Kent, Washington
For Piledrivers Local Union #2396

Before: Administrative Law Judge Sidney J. Goldstein

DECISION AND ORDER

Procedural History

This proceeding is before the Occupational Safety and Health Review Commission (“the Commission”) pursuant to Section 10(c) of the Occupational Safety and Health Act of 1970, 29 U.S.C. §651 *et seq.* (“the Act”). The Occupational Safety and Health Administration (“OSHA”) conducted an inspection of an Associated Underwater Services, Inc. (“Respondent”) worksite at Cherry Point, Washington between August 8, 2007 and October 10, 2007. As a result of the inspection, OSHA issued a *Citation and Notification of Penalty* to Respondent alleging three violations of the Act. Citation 1 Item 1 alleged a serious violation of 29 C.F.R. §1910.421(d)(2).

Citation 1 Item 2 alleged a serious violation of 29 C.F.R. §1926.550(a)(19). Citation 2 Item 1 alleged an other than serious violation of 29 C.F.R. §1910.1200(f)(5). Citation 1 Item 2 and Citation 2 Item 1 were settled by the parties prior to trial. Therefore, only Citation 1 Item 1 remained in dispute at the time of hearing. The Secretary proposed a penalty of \$2,500 for Citation 1 Item 1. Respondent timely contested the citation and an administrative trial was held on April 27-28, 2009 in Seattle, Washington. The Pile Drivers Local Union #2396 elected party status and participated during the hearing. (Tr. 5, 56).

Approximately two weeks before trial, the court received *Motions in Limine of Respondent and Complainant's Opposition to Respondent's Motions in Limine*. In response to the motions, the Secretary stipulated that she was not alleging that Respondent violated Section 5(a)(1) of the Act in this case. Therefore, the court granted Respondent's request that any evidence and argument in support of a Section 5(a)(1) violation be excluded. Respondent's other requests for relief were stayed pending the production of evidence at the hearing and are hereby DENIED to the extent such requested findings of fact are inconsistent with this decision.

Each party submitted a timely post-trial brief. Therefore, this case is ready for disposition.

Jurisdiction

Jurisdiction of this action is conferred upon the Occupational Safety and Health Review Commission pursuant to Section 10(c) of the Act. The record establishes that at all times relevant to this action, Respondent was an employer engaged in a business affecting interstate commerce within the meaning of Section 3(5) of the Act, 29 U.S.C. §652(5). (*Complaint and Answer*).

Factual Findings

This inspection resulted from a fatality accident which occurred on August 7, 2007, in which commercial diver Christopher Primeau was killed while working approximately 140 feet

underwater in Cherry Point, Washington. (Tr. 24, 122, 159, 258). Respondent, a commercial diving company, was subcontracting with British Petroleum (“BP”) to provide underwater diving support for the installation of metal pilings. (Tr. 24). The pilings were going to serve as underwater structural support for an oil containment boom being installed in an area where oil tankers off-load to refineries. (Tr. 24-25).

General Construction, another BP subcontractor at the jobsite, was responsible for positioning and driving the pilings into the ocean floor. (Tr. 25, 283). Respondent’s job was to observe the driving of the pilings into the ocean floor, through the use of underwater divers, to ensure they were being driven correctly. (Tr. 25). Respondent had no direct contractual relationship with General Construction on this jobsite. (Tr. 283). Each piling weighed approximately 8,000 pounds and measured 22 feet long. (Ex. 10).

At the beginning of this project, Respondent’s dive crew participated in a large, multi-employer safety meeting which included General Construction employees, tugboat operators, and others, in which the entire project was “walked through.” (Tr. 526). Included in that multi-party safety meeting was a discussion of General Construction’s responsibilities and the specific manner in which Respondent’s dive crew would be involved. (Tr. 526). In addition, Respondent conducted a daily, step-by-step, pre-dive discussion with its dive crew during “toolbox” meetings on this job. (Tr. 270-278). These daily pre-dive discussions included anticipated hazards and methods to address them. *Id.* The details of these daily dive crew meetings are extensively described by Kerry Donohue, Respondent’s Vice President and Dive Supervisor, over the course of eight pages of trial transcript. *Id.* The pre-dive meeting on the day of the fatal accident was even more comprehensive than usual because Respondent had a new diver present on the dive crew. (Tr. 287).

Mr. Donohue has been involved in commercial diving operations for thirty years and has extensive experience. (Tr. 239-250). Just to become a certified commercial diver requires 400-

500 hours of academic and diving training, including such things as basic diving operations, decompression tables, chamber operations, and practical welding and burning skills. (Tr. 260). Even then, a certified commercial diver would start at the lowest entry level. The Association of Diving Contractors International (“ADCI”) recognizes three levels of divers: (1) air divers (first level), (2) mixed-gas divers (second level), and (3) saturation divers (highest level). (Tr. 261-262). In saturation diving experience alone, the most complicated and dangerous type of commercial diving, Mr. Donohue personally has more than a year of actual submerged time. (Tr. 242, 250).

In addition to the multi-party pre-dive safety meeting and daily dive team meetings, Respondent had prepared a written “Work & Dive Operations Plan” for this specific dive which included, among other things, an “Activity Hazards Analysis.” (Tr. 397; Ex. 5). In this written, pre-dive document, Respondent identified “rigging failure” as a possible hazard on this particular dive project, and listed multiple recommended controls for addressing that hazard. They included: (1) use only approved rigging in good condition, (2) use proper rigging techniques, (3) ensure all equipment is secured to deck for transport, (4) personnel instructed in the hazards associated with working around cranes, (5) all hands stand clear of equipment and other items on crane hook, and (6) tag lines to be used to control loads on hook. (Ex. 5, p. 130).

The pilings being installed were driven one at a time into the sea floor, during “slack tides” when there was not a lot of water movement and it was safer for the divers. (Tr. 29, 38). Respondent’s employees were not involved in any way with General Construction’s lifting of the pilings off the barge and lowering them down to the ocean floor. (Tr. 363). In fact, Respondent’s dive crew did not typically arrive on site each day until after General Construction’s crew was prepared to drive the pilings because the Respondent’s hourly costs to BP were higher than the General Construction crew. (Tr. 284-285).

Respondent’s divers did not enter the water until the piling had already been lowered into

position approximately one foot off the sea floor. (Tr. 38-39). Respondent's practice was to have the diver enter the water and follow the hydraulic control lines from the surface down to the location of the piling. (Tr. 29). Once the diver was on the bottom, he checked the sea floor for any obstructions that might interfere with the driving of the piling, then backed away approximately 3-4 feet, and instructed the Dive Supervisor to tell the General Construction crew to activate the hammer which drives the pilings. (Tr. 30).

Respondent's divers' primary responsibilities on this jobsite were to: (1) monitor the underwater pile-driving for any problems during the driving process, and (2) command an "all stop" if a problem developed. (Tr. 320-321). To perform these duties, divers had to remain within a few feet of the piling while it was being slowly driven since visibility at that depth was only 3-4 feet. (Tr. 320-321). There was a wired telephone communication system between the underwater diver and the Dive Supervisor on the barge. (Tr. 31). Communications between the diver and the Dive Supervisor were repeated to ensure no miscommunication occurred. (Tr. 30). There was also a video camera attached to the diver's helmet, which transmitted a visual image to the Dive Supervisor during the course of the dive. (Tr. 31; Exs. 3, 7).

At the time of the accident, four pilings had already been successfully driven into the sea floor over the course of the previous two days. (Tr. 45). Three different divers had been in the water monitoring the pile-driving up until the time of the accident: Chris Primeau (deceased), Kirk Neumann, and Marty Edwards. (Tr. 67). The previous four pilings had been driven into the sea floor using an impact hammer. (Tr. 51). On the day of the accident, the General Construction crew changed to a vibratory hammer to drive the pilings into the sea floor. (Tr. 51). An impact hammer drives pilings through repeated downward blows, whereas a vibratory hammer causes the piling to vibrate (25 vibrations per second) while downward pressure causes it to work itself into the sea floor. (Tr. 51, 155). The parties agreed that vibratory hammers are designed to "fail closed," that is, hammer jaws are interlocked so they will not inadvertently

open while the vibration feature is engaged. (Tr. 217, 504). The hammers were secured, and lowered, by a crane positioned on a barge at the surface of the water. (Tr. 290-291; Ex. 1).

On the day of the accident, General Construction attached (for the first time) a wire cable to the piling as it was lifted off the barge and lowered into position in the water. (Tr. 32, 39, 52, 293-294; Ex. 1). On the previous dives, the pilings were positioned while being held only by the grip of the hammer. (Tr. 52). However, the record establishes that Respondent did not have a diver in the water during the movement of the pilings from the barge into the water at any time on this project.

After he entered the water and descended the 140 feet to the bottom, diver Chris Primeau removed the wire cable from the piling and told Dive Supervisor Donohue that the General Construction crew could activate the vibratory hammer. (Tr. 293-294). Almost immediately after the hammer was started, Mr. Primeau repeatedly ordered “all stop” to the surface. (Tr. 40; Ex. 3). The video feed from Mr. Primeau’s dive helmet terminated a few seconds later and the dive team could not get a response from Mr. Primeau on the telecommunications system. (Tr. 40; Ex. 3). It was later discovered that the piling had come loose from the grip of the vibratory hammer and fallen over onto Mr. Primeau. (Tr. 307). Prior to the “all stop” commands, Mr. Primeau never said or did anything to indicate any type of problem during the dive. (Tr. 297).

OSHA Compliance Safety and Health Officer Michael Bonkowski conducted the accident investigation. (Tr. 24). Prior to this investigation, he had never inspected any commercial diving pile-driving projects, or any type of worksite using a vibratory hammer to drive pilings. (Tr. 69-72). His only experience with underwater diving came from recreational scuba diving 40 years ago and a three-day community college course on scuba diving 15 years ago. (Tr. 72).

Dale Cavanaugh, OSHA Assistant Regional Administrator, assisted CSHO Bonkowski with the investigation. (Tr. 133). Prior to this inspection, he had never investigated a commercial

diving accident or an underwater pile-driving project. (Tr. 192). His only experience with underwater diving was a two-day “familiarization” course and a certification for recreational scuba diving. (Tr. 132). ARA Cavanaugh never looked at any of Respondent’s equipment or interviewed any of Respondent’s employees. (Tr. 195). His primary role in the investigation was to observe post-accident testing of the vibratory hammer and piling involved in the accident. As a result of those tests, he learned that the maximum opening for the vibratory hammer jaw was 1.17 inches. (Tr. 142). The width of the pad-eye connection on the piling, onto which the vibratory hammer jaws clamped down, was 1.25 inches. (Tr. 142). Therefore, the vibratory hammer jaw opening was .08 inches too small to fit around the piling connection. The parties agree that this caused the piling to come loose from the hammer while Mr. Primeau was in the water. (Tr. 85, 198).

The citation at issue in this case alleges that Respondent failed to conduct an adequate pre-dive hazard assessment, exposing their divers to the hazard of falling pilings. (Tr. 60, 64). OSHA acknowledged that Respondent did assess certain hazards, but omitted any assessment of hazards associated with diving near crane and pile-driving operations. (Tr. 63-64). CSHO Bonkowski also maintains that implicit in the assessment requirement is the “basic duty” to take specific action to protect employees from the hazards assessed. (Tr. 65). OSHA maintains that having divers observing the pile-driving process within a few feet of the piling, with no safety line between the crane and the piling, proves that Respondent’s hazard assessment was deficient. (Tr. 165). OSHA acknowledged that the cited standard, 29 C.F.R. §1910.421(d)(2), is a performance-based standard, which affords employers some discretion in assessing and addressing hazards. (Tr. 506-507).

OSHA points to several other facts in support of its position:

(1) There was a warning sign on the vibratory hammer which stated: “Danger. Falling piles can cause serious injury or death. Do not use vibro as a pile lifting device.” (Tr. 156, 338,

362; Ex. 12). Although OSHA placed significant focus on this warning sign during trial, they described it only as “fairly visible” in their post-trial brief. (Secretary’s Brief, p.25). The Secretary also acknowledges that the hazard of a falling piling “is not the general type of diving issue that is common to all diving.” (Secretary’s Brief, p.27). However, the court notes that Respondent’s divers did not enter the water until the piling was lifted off the barge and lowered 140 feet into position on the sea floor. Therefore, any improper lifting and maneuvering of the piling was done before Respondent’s employees began to perform their duties.

(2) General Construction safety manual identifies the possibility that pilings can fall. (Tr. 66-67; Ex. 9). OSHA also points to American Pile-Driving Equipment, Inc.’s Operations Manual which states: “[a]lways attach safety line to pile when extracting or hoisting into position.” (Ex. 4, p.18). OSHA offered these third-party documents as evidence of industry practice requiring the use of safety lines between the piling and the crane. OSHA maintains that Respondent should have addressed and abated the hazard of falling pilings by either securing a safety line to the pilings until they were driven deep enough to stand on their own or by not having divers in the water during the pile-driving. (Tr. 66, 105, 490). However, there was no evidence that Respondent had knowledge of the contents of General Construction’s or American Pile-Driving Equipment’s manuals. Respondent also pointed out that CSHO Bonkowski did not reference the failure to use a safety line anywhere in his investigation file. (Tr. 111). Lastly, OSHA ARA Cavanaugh could not identify any ADCI consensus standard which mandated the use of a safety line to protect a diver from the possibility of a piling coming loose from a hammer during a dive. (Tr. 197).

(3) Respondent’s own dive manual identifies rigging failure as a possible hazard and advises personnel to stay clear of suspended loads. (Tr. 166, Ex. 5). However, the allegation in this case is that Respondent failed to assess the hazards associated with pilings becoming detached from vibratory hammers secured to cranes. The referenced portion of Respondent’s

dive manual was prepared specifically for this job and is entitled “Activity Hazard Analysis.” (Ex. 5, p. 130). This seems to support the proposition that hazards associated with equipment lifted and positioned by crane were in fact assessed before the dive. In addition, CSHO Bonkowski acknowledged that there is no OSHA regulation which specifically prohibits a diver from standing next to a piling while it is being driven underwater. (Tr. 112). However, he believes 1910.421(d)(2) can be interpreted as prohibiting such a practice. (Tr. 118).

(4) OSHA alleged that Respondent observed General Construction employees having trouble securing the hammer to the pad-eye on the piling. (Tr. 59). CSHO Bonkowski testified that they had to “beat it on every time,” indicating that something was obviously wrong with connection between the hammer and the piling. (Tr. 59). However, the Secretary presented no evidence establishing that Respondent’s employees were aware of any such “beating” of the hammer onto the piling. In fact, based on this record, the court finds there was no basis upon which Respondent should have suspected that General Construction would use a vibratory hammer that was .08 inches too small for the pad-eye connection on the piling. (Tr. 278, 314).

Although OSHA recognizes that ADCI consensus standards represent the best practices for commercial diving operations, CSHO Bonkowski did not reference them prior to issuing the citation items in this case. (Tr. 81-82). CSHO Bonkowski also acknowledges that a dive plan, including the hazard assessment, does not have to be written to comply with OSHA regulations. (Tr. 82). Finally, CSHO Bonkowski testified that OSHA’s commercial diving regulations do not specifically impose a duty on commercial diving employers to inspect the equipment of other contractors on a site. (Tr. 99). OSHA conceded that Respondent did not have a duty to inspect General Construction’s crane equipment unless Respondent saw something “that looked hazardous.” (Tr. 205).

Each party offered expert testimony in support of their respective positions. Complainant’s expert, Stephen Butler, and Respondent’s expert, Jon Hazelbaker, were both

accepted as experts on the subject of best practices in commercial diving operations. Mr. Hazelbaker has been engaged in commercial diving, both as a commercial diver and consultant, for 41 years. (Tr. 410-416). He actually served on the ADCI Board of Directors in the 1990's and still performs consultative work for the organization. (Tr. 419). He is the only testifying expert witness with personal commercial diving experience involving underwater pile-driving with a vibratory hammer. (Tr. 417). As a result, the court gives greater weight to Mr. Hazelbaker's testimony on best practices for this particular kind of project.

Mr. Hazelbaker testified that, after reviewing the pre-dive actions of Respondent in this case, he believes Respondent complied with professional diving standards and §1910.421(d)(2). (Tr. 422). He also testified that in his forty years of commercial diving experience, he has never seen or heard (other than the present case) of a vibratory hammer failing and releasing a piling from its grip, or of a safety line being attached from a piling to a hammer while it was being driven underwater. (Tr. 426, 433). He further testified that if he was performing this dive himself, he would have been positioned in the same location as the deceased diver. (Tr. 428). Even Stephen Butler, who is Director of Maritime Enforcement for OSHA, testified that a diver could be positioned next to the piling while it was being driven once it was partially imbedded in the sea floor. (Tr. 467-468, 490).

The court notes that actual pile-driving process is relatively slow. As depicted in video footage, it takes approximately six minutes to drive a 22-foot piling into the sea floor with a vibratory hammer. (Ex. 7). With regard to the sign warning against using the hammer as a lifting device, Mr. Butler testified that all Respondent should have done with regard to this issue was "do a little research, find out a little bit more about it, and then discuss it, you know, with the controlling employer in this case, General Construction, until they get a satisfactory answer relative to that particular piece of equipment." (Tr. 492). Mr. Butler also testified, with regard to Respondent's own procedures and equipment, that he found no problems: "...quite honestly, I

haven't found any major disagreements with that part of just running the dive. I think the company has done an incredible thing. I have said so before in the deposition. I think their safe practices manual, what they have, is adequate." (Tr. 488). Mr. Butler maintained that Respondent had not done enough to address the hazards presented by the equipment of the other subcontractor on site: General Construction. (Tr. 488-489).

The Secretary maintains that the violation was properly characterized as serious because a falling piling could, and did in this case, result in serious physical harm or death. (Tr. 67).

Discussion

To establish a *prima facie* violation of the Act, the Secretary must prove: (1) the standard applies to the cited condition; (2) the terms of the standard were violated; (3) one or more of the employees had access to the cited condition; and (4) the employer knew, or with the exercise of reasonable diligence could have known, of the violative condition. *Ormet Corporation*, 14 BNA OSHC 2134, 1991 CCH OSHD ¶29,254 (No. 85-0531, 1991).

Citation 1 Item 1

The Secretary alleged in Citation 1 Item 1 that:

29 C.F.R. §1910.421(d)(2): Planning of a diving operation did not include an assessment of the safety and health aspects of surface and underwater conditions: (a) At Cherry Point the dive plan did not address hazards resulting from surface and underwater conditions for dives greater than 100 fsw and working around a suspended vibratory hammer clamped to a piling.

The cited standard provides:

29 C.F.R. §1910.421(d) Planning and assessment. Planning of a diving operation shall include an assessment of the safety and health aspects of the following:

...(2) *Surface and underwater conditions and hazards*;

Respondent concedes that the cited standard applies. (Respondent's Brief, p. 24). With regard to whether the terms of the standard were violated, the Secretary does not dispute that Respondent conducted a hazard assessment. Rather, she argues that Respondent's hazard assessment was unreasonably deficient in that it did not consider the possibility of falling pilings.

It is undisputed that the cited standard is a performance standard, which differs from a specific standard in that employers are afforded broader discretion by OSHA to identify hazards which are peculiar to their own workplace and determine the steps necessary to abate them. *Secretary's Brief*, p. 52; *OSHRC v. Thomas Industrial Coatings, Inc.*, 21 BNA OSHC 2283, 2008 CCH OSHD ¶32,937 (No. 97-1073, 2007). Since performance standards do not identify specific obligations, compliance is evaluated on the basis of reasonableness. *Id.* Broadly worded standards, such as the one here, typically require a showing that a reasonable person familiar with the situation would recognize a hazardous condition which should have been addressed. *Farrens Tree Surgeons, Inc.*, 15 BNA OSHC 1793, 1992 CCH OSHD ¶29,770 (No. 90-998, 1992). "If the language of the regulation is not specific enough, however, other sources may provide constructive notice: industry custom and practice; the injury rate for that particular type of [] work; the obviousness of the hazard; and the interpretations of the regulation by the Commission." *Corbesco, Inc.*, 926 F.2d 422 (5th Cir. 1991).

There was significant testimony and evidence presented at trial concerning the events during actual dives and the unfortunate fatality accident. However, this court finds that such information is only minimally relevant to the issue at hand: What steps did Respondent take *before* their divers entered the water to assess anticipated hazards?

"Commercial diving involves exposure to a high degree of risk. The diver's work environment is inherently dangerous." 42 F.R. 37,651. Therefore, it is imperative that commercial diving employers implement precise and comprehensive procedures to protect their

divers from recognized hazards. In this instance, the record clearly reveals significant and repeated steps taken by Respondent, both verbally and in writing, to address hazards they anticipated on this project. Respondent participated in a large pre-dive safety meeting involving all subcontractors, conducted daily meetings covering step-by-step procedures and hazards anticipated in each dive, and included a written hazard analysis in their dive plan which addressed working near suspended loads and cranes.

The third party procedure manuals of General Construction and American Pile-Driving Equipment, Inc., which discuss the hazard of falling pilings, do not specifically apply to underwater pile-driving. They also address the hazard of falling pilings while the pilings are being maneuvered into position. Since Respondent's divers did not enter the water until the pilings were positioned one foot off the sea floor, any improper lifting or moving of pilings occurred before the divers' work began.

Additionally, the court finds that the Secretary failed to establish that other commercial diving employers would have conducted their pre-dive hazard assessment any differently than Respondent in this situation. Alleged violations of broadly worded standards can be vacated when the Secretary fails to establish that an employer failed to comport with industry practice. *Brooks Well Servicing*, 20 BNA OSHC 1286, 2002 CCH OSHD ¶32,675 (No. 99-0849, 2003). The court finds, based on this record, that it was unforeseeable by Respondent that after four previous successful dives monitoring this sea floor pile-driving process, that General Construction would then use a vibratory hammer with a piling connection *eight-one-hundredths-of-an-inch* too small to fit onto the piling, causing it to come loose in the water.

The Secretary failed to establish, by a preponderance of the evidence, that Respondent's pre-dive hazard assessment as required by 29 C.F.R. §1910.421(d)(2), was inadequate.

Affirmative Defenses

Since the Secretary failed to establish a *prima facie* violation of the Act, Respondent's

affirmative defenses will not be addressed.

ORDER

Based upon the foregoing Findings of Fact and Conclusions of Law, it is ORDERED that Citation 1 Item 1 is VACATED.

/s/
SIDNEY J. GOLDSTEIN
Judge, OSHRC

Date: December 4, 2009
Denver, Colorado