UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
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SECRETARY OF LABOR
Complainant,
v.
PRO-DRIVE, INC.
Respondent.

OSHRC DOCKET
NO. 92-2532

NOTICE OF DOCKETING OF ADMINISTRATIVE LAW JUDGE'S DECISION

The Administrative Law Judge's Report in the above referenced case was docketed with the Commission on April 13, 1995. The decision of the Judge will become a final order of the Commission on May 15, 1995 unless a Commission member directs review of the decision on or before that date. ANY PARTY DESIRING REVIEW OF THE JUDGE'S DECISION BY THE COMMISSION MUST FILE A PETITION FOR DISCRETIONARY REVIEW. Any such petition should be received by the Executive Secretary on or before May 4, 1995 in order to permit sufficient time for its review. See Commission Rule 91, 29 C.F.R. 2200.91.

All further pleadings or communications regarding this case shall be addressed to:

Executive Secretary
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Review Commission
1120 20th St. N.W., Suite 980
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Petitioning parties shall also mail a copy to:

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If a Direction for Review is issued by the Commission, then the Counsel for Regional Trial Litigation will represent the Department of Labor. Any party having questions about review rights may contact the Commission's Executive Secretary or call (202) 606-5400.

FOR THE COMMISSION

Ray H. Darling, 4/13/95

Ray H. Darling, Jr.
Executive Secretary

Date: April 13, 1995

DOCKET NO. 92-2532

NOTICE IS GIVEN TO THE FOLLOWING:

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SECRETARY OF LABOR, Complainant, v. PRO-DIVE, INC., Respondent.	OSHRC DOCKET NO. 92-2532

APPEARANCES:

For the Complainant:

Lisa R. Williams, Esq., Office of the Solicitor,
U.S. Department of Labor, Chicago, IL

Darrell K. Seigler, Esq., Ottawa, IL

DECISION AND ORDER

Goldstein, Judge:

This is an action by the Secretary of Labor against Pro-Dive, Inc. to enforce a citation issued by the Occupational Safety & Health Administration for the alleged violation of five safety regulations relating to commercial diving adopted under the Occupational Safety & Health Act of 1970. The controversy arose after an industrial hygienist of the Administration inspected a work place of the Respondent, concluded that it was in violation of the regulations and recommended that the citation be issued. The Respondent disagreed with this determination and filed a notice of contest. After a complaint and answer were

filed with this Commission, a hearing was held in Chicago, Illinois.

Preliminary facts disclose that the Respondent is engaged in the commercial diving business and contracted with Commonwealth Edison Company to seal an underwater valve at its plant in LaSalle County, Illinois. To reach the repair site, the diver was to descend approximately sixty feet, move laterally about twenty feet and then ascend about twenty feet to reach the valve. The dive team consisted of Randy Jacobs, president of the Respondent who acted as dive supervisor and standby diver; Terry Navarro, the diver; and Mark Parisot, the dive tender.

After the repair job was completed, it appeared that Mr. Navarro, the diver, was in distress. The team attempted to pull Mr. Navarro to the surface by the line attached to him. However, there was an apparent snag, and Mr. Jacobs immediately went to Mr. Navarro's rescue. The diver was lifted to the surface where emergency treatment was administered to no avail. Mr. Navarro passed on in a hospital on April 18, 1992. According to a pathology and coroner report, the cause of death was asphyxia - malfunctioning diving equipment.

Citation No. 1, Item 1 29 CFR 1910.410(b)(3)

Item 1 of the citation charged that:

> The employer permitted a dive team member to dive or be otherwise exposed to hyperbaric conditions during a temporary physical impairment or condition which was known to the employer and was likely to affect adversely the safety or health of a dive team member:
>
> Commonwealth Edison, LaSalle County Station - Dive team members had not had proper nourishment or rest prior to the dive.

in violation of the regulation which provides:

> (3) The employer shall not permit a dive team member to dive or be otherwise exposed to hyperbaric conditions for the duration of any temporary physical impairment or condition which is known to the employer and is likely to affect adversely the safety or health of a dive team member.

The evidence in this connection is to the effect that the dive team arrived at the work site about 10:00 p.m. on April 16, 1992, but did not commence operations until about 10:45 a.m. the following day. Messrs. Jacobs and Parisot testified that they did not know what, if anything, Mr. Navarro ate prior to the dive, but they saw him drink coffee. There was a vending machine on the premises available to anyone in the group. No one on the team noted that Mr. Navarro was hungry or weakened from lack of food. The pathologist found no food in his stomach and was, therefore, unable to state when Mr. Navarro consumed his last meal.

So far as sufficient rest prior to the dive is concerned, there is nothing in the record to establish that Mr. Navarro was unusually tired at the time of the dive. He made no complaint to this effect; indeed, he remarked that he felt fine at the time he commenced his descent.

Since Mr. Navarro's fellow employees and apparent only witnesses to his physical condition at the time of the dive noted no impairment due to lack of food or rest, I conclude that the Complainant failed to establish that Mr. Navarro did not have proper nourishment or rest prior to the dive. This item of the citation is vacated.

Citation No. 1, Item 2 - 29 CFR 1910.421(d)(3)

Item 2 of the citation alleges that:

> Planning of a diving operation did not include an assessment of the safety and health aspects of the breathing gas supply:
> Commonwealth Edison, LaSalle County Station - The employer did not determine if the air supply to the diver would be adequate for the proposed dive.

in violation of the regulation which appears at 29 CFR 1910.421(d)(3) which provides:

> (d) Planning and assessment. Planning of a diving operation shall include an assessment of the safety and health aspects of the following:
>
> (3) Breathing gas supply (including reserves).

The record discloses that on April 22, 1992, Mr. John Maronic, the Administration's

industrial hygienist, commenced an investigation of the accident. He interviewed Mr. Jacobs and was told Mr. Navarro died because of a buildup of carbon dioxide in his diving helmet. Mr. Maronic also spoke with Mr. Dave Clark of Scott Diving who informed him that there were concerns about the air flow to the helmet due to a plugged diffuser.

To assist in the investigation, the Agency contacted Lt. Commander Allan Harker of the U.S. Coast Guard, a seventeen year veteran of that service and a highly experienced diver and investigator of marine accidents. Two months after the mishap, Lt. Commander Harker visited the accident scene and reenacted on videotape the events of the fatal day in the presence of Mr. Jacobs and his attorney, Mr. Maronic, representatives of Commonwealth Edison Company and the manufacturer of the Desco helmet, and Mr. Navarro's brother. Lt. Commander Harker duplicated the work set up as closely as possible to the actual events of April 17, 1992. With Mr. Jacobs' guidance, Lt. Commander Harker disassembled the helmet and explained to the observers what he was doing and what he found. No one present objected to his procedures, theories, and interpretations. In his written report, he stated that the apparent cause of the tragedy was insufficient volume of air supplied to the decedent at the time of the casualty, most likely resulting in an excessive amount of carbon dioxide. There was no doubt that the air pressure was below the minimum of 125 psi.

The Respondent retained Mr. Robert Wass to do a similar study. Mr. Wass is president of Island Divers and a teacher of sport through commercial diving. He is also an electrician by trade and was employed as a foreman in this occupation. Mr. Wass had extensive experience in the investigation of diving fatalities, but did not participate in any fatality due to a Desco helmet or elevation of carbon dioxide. He also tried to duplicate the events of the diving accident. In his report, Mr. Wass disagreed with Lt. Commander Harker's opinion and concluded that the Respondent did not violate the regulation relating to the ventilation rate. Mr. Wass also faulted the Commander's methodology and procedure. Based upon his study, Mr. Wass concluded that the diver was supplied with air pressure between 125 and 150 psi, an amount more than sufficient for the dive.

In this connection, Mr. Jacobs testified that Mr. Navarro was highly experienced in his field and well acquainted with the Desco helmet, although this equipment had not previously been used in dives of sixty feet. Mr. Jacobs made a visual inspection of the

equipment and relied on his experience that the air flow was normal, but he did not know the actual air flow or cubic feet per minute supplied to the diver. Mr. Jacobs believed the air pressure was between 125 and 150 psi and acknowledged that 100 psi would be insufficient. The company's diving systems standard operating procedures called for air pressure to be between 125 and 150 psi.

In its brief, the Respondent criticizes Lt. Commander Harker's conclusion regarding the amount of air pressure supplied to Mr. Navarro, and requests that the Court look closely at Exhibits R-5, R-6 and R-7 as confirmation that, on the day of Mr. Navarro's death, the pressure relief valve was set at 200 psi and had a working pressure of 170 psi. I looked at these exhibits which are dated May 11 and May 12, 1994, approximately two years after the accident and find nothing to indicate the exact psi on April 17, 1992. On the other hand, logs kept by Commonwealth Edison Company disclose that on the fatal date the air pressure ranged from 109 to 111 psi, amounts considered below the minimum to sustain Mr. Navarro at the sixty foot depth.

Inasmuch as there was insufficient air pressure supplied to Mr. Navarro on the accident date, the Respondent was in violation of this regulation, and this item of the citation is, therefore, affirmed.

Citation No. 1, Item 3 - 29 CFR 1910.430(g)(1)

Item 3 of the citation stated that:

> Gauges indicating diver depth, which can be read at the dive location, were not used for all dives:
> Commonwealth Edison, LaSalle County Station - a depth gauge was not used for this dive.

in violation of the regulation found at 29 CFR 1910.430(g)(1) providing:

> (g) *Gauges and timekeeping devices.* (1) Gauges indicating diver depth which can be read at the dive location shall be used for all dives except SCUBA.

The evidence is undisputed that the Respondent had a pneumofathometer available at the job site, but decided not to use this gauge during the dive in issue. The Respondent urges that on hand at the dive was the umbilical hose which was marked with increments of

distance, and that the marking satisfied the regulation. A Fathometer is used as a sonic depth finder. Inasmuch as the diver was required to move laterally as well as vertically, the hose would not be as effective in measuring depth as the sonic depth finder. A gauge is generally considered to be an instrument, not a hose.

Respondent's Exhibit No. R-1 is entitled "Operations Safety Procedure Manual." In its Appendix IV, II headed "Diving", paragraph 6 provides "A pneumofathometer or equally accurate method will be provided for measuring depths or dives * * *." In this case, it has not been demonstrated that the umbilical cord measurement would be as accurate as a gauge, especially in view of the fact that the diver was required to move laterally. Thus, the Respondent was in violation of this regulation, and this item of the citation is affirmed.

Citation No. 1 - Item 4a - 29 CFR 1910.430(h)(2)
Citation No. 1 - Item 4b - 29 CFR 1910.425(c)(3)

Items 4A and 4b are related and read as follows:

> The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for illness.
> 4a
> Surface-supplied air masks and helmets did not have a minimum ventilation rate capable of 4.5 acfm at any depth at which they are operated:
> Commonwealth Edison, LaSalle County Station - The dive helmet did not deliver 4.5 acfm of air to the diver.
> 4b
> Surface-supplied air diving operations did not have a primary breathing gas supply sufficient to support divers for the duration of the planned dive including decompression:
> Commonwealth Edison, LaSalle County Station - The primary breathing gas supply was not sufficient to support the diver for the planned dive.

in violation of the regulations found at 29 CFR 1910.430(h)(2) and at 29 CFR 1910.425(c)(3) copied below:

> (2) Surface-supplied air masks and helmets shall have a minimum ventilation rate capability of 4.5 acfm at any depth at which they are operated or the capability of maintaining the diver's inspired carbon dioxide partial pressure below 0.02 ATA when the diver is producing carbon dioxide at the rate of 1.6 standard liters per minute.
>
> (3) Each diving operation shall have a primary breathing gas supply sufficient to support divers for the duration of the planned dive including decompression.

These two regulations concern surface-supplied air masks and helmets and the primary breathing gas supply. Again, there is a conflict between Lt. Commander Harker's studies and Mr. Wass' conclusions. These reports have been discussed previously. As a result of his investigation, Lt. Commander Harker concluded that there was insufficient amount of surface supplied air to Mr. Navarro, well below the required 4.5 acfm, resulting in a build up of carbon dioxide beyond the demands of the regulation.

Lt. Commander Harker explained that the regulation has two alternatives. Either there must be a 4.5 acfm ventilation rate which requires that amount of air going into the helmet or the carbon dioxide rate would be no more than .002 or two tenths of one percent. In the latter case, there could be no guesswork. The carbon dioxide must be measured. This expert was of the opinion that neither alternative of the regulation was satisfied. On the other hand, Mr. Wass had a contrary view and was of the opinion that the Respondent complied with the regulations.

With this diversity of opinion, I am placing more reliance upon the testimony and conclusions of Lt. Commander Harker because tests a few hours after the accident disclosed deficient air quantity; because Lt. Commander Harker conducted his tests approximately two months after the tragedy and set up the equipment, including the black box, as Mr. Jacobs informed him were in place at the time of the mishap; because Lt. Commander Harker conducted his tests witnessed by Mr. Jacobs and his attorney, the industrial hygienist, representatives of Commonwealth Edison Company and the manufacturer of the Desco helmet, and Mr. Navarro's brother; because the demonstrations, explanations and comments were recorded on videotape with no objection to the procedures; because Mr. Wass conducted his investigation over a year after the accident without observers; because the

deceased was an experienced diver and well acquainted with the Desco helmet; because there is no proof that Mr. Navarro varied his work habits on this particular dive; because there is nothing in the record to indicate Mr. Navarro violated safety regulations or that his death was caused by his own misconduct or disregard of safety procedures as alleged by the Respondent in its brief.

I, therefore, find that the Respondent was in violation of the regulations recorded in Citation No. 1, Items 4a and 4b.

The parties made little, if any, reference to the recommended penalties in the citation, and they, therefore, will not be disturbed.

In sum, Citation No. 1, Item 1 is vacated. The remainder of the citation is affirmed.

Sidney J. Goldstein
Judge, OSHRC

Dated: April 7, 1995