

SECRETARY OF LABOR,

Complainant,

v.

PATTERSON DRILLING COMPANY, L.P.,
and its successors,

Respondent.

OSHRC DOCKET NO. 01-1993

APPEARANCES:

For the Complainant:

Susan M. Williams, Esq., Office of the Solicitor, U.S. Department of Labor, Dallas, Texas

For the Respondent:

Mark Cullifer, Patterson - UTI Drilling Company, Snyder, Texas

Before: Administrative Law Judge: Benjamin R. Loye

DECISION AND ORDER

This proceeding arises under the Occupational Safety and Health Act of 1970 (29 U.S.C. Section 651 *et seq.*; hereafter called the "Act").

Respondent, Patterson Drilling Company, L.P., and its successors (Patterson), at all times relevant to this action maintained a place of business on County Road 4461, near Boyd, Texas, where it was engaged in drilling. Respondent admits it is an employer engaged in a business affecting commerce and is subject to the requirements of the Act (Tr. 13).

After Patterson reported a fatality at its Boyd work site, the Occupational Safety and Health Administration (OSHA) conducted an inspection of the site. The inspection was conducted between April 16 and September 18, 2001. On October 5, 2001 Patterson was issued a "willful" citation alleging violation of §5(a)(1) of the Act, together with a proposed penalty. By filing a timely notice of contest Patterson brought this proceeding before the Occupational Safety and Health Review Commission (Commission).

On June 18, 2002, a hearing was held in Lubbock, Texas. At the hearing, Complainant's motion to amend the citation to allege a "serious," rather than a "willful," violation of the Act was granted (Tr. 8). The parties have submitted briefs on the issues as amended, and this matter is ready for disposition.

Facts

On April 13, 2001 Patterson employees were bringing pipe out of the hole at the drill site near Boyd, Texas (Tr. 27). Compliance Officer (CO) Sandra Boudloche testified that Cayetano Moreno, the driller in charge of the floor operation, told her that the crew was using a single “tong” (essentially a four to five hundred pound pipe wrench) to break out the pipe (Tr. 24, 65, 202; Exh. C-8). The tong was tightened onto the segment, or stand, of pipe pulled from the drill hole, and secured to the derrick by means of a “snub line” attached to a “tong pin” in the outermost end of the tong arm (Tr. 50; Exh. C-1 at F, C-8). The “rotary table,” a 36 inch diameter mechanized disc in the floor of the rig through which the pipe passes (Tr. 329; Exh. C-1, at B and C), was engaged to break the joint or connection between the uppermost stand of pipe and the pipe remaining in the hole (Tr. 34, 65-66; C-8; *See also testimony of G. Bagnall*, Tr. 190-91). Moreno told Boudloche that the crew removed a few stands of pipe without incident. The last time Moreno engaged the rotary table engine, however, he heard a loud pop (Tr. 38, 64-65; Exh. C-8). The bolt securing the tong pin to the tong arm sheared, and the tong pin came out, freeing the tong from the restraining snub line (Tr. 33, 45, 53 64-65; Exh. C-1 at D; C-3; C-4; *See also testimony of G. Bagnall*, Tr. 192). The tong swung around with the pipe spinning in the rotary table and struck Mr. John Crocker, a floor hand. Mr. Crocker subsequently died of his injuries (Tr. 22, 24, 39, 65; Exh. C-8).

Mr. Moreno told CO Boudloche that they usually used a two tong method to break out pipe; however, he did not know of any company rule prohibiting the use of only one tong (Tr. 66). Moreno told Boudloche that the supervising tool pusher, Brent Keysey, knew they were using only one tong (Tr. 22, 24, 66).

Alleged Violations

Serious Citation 1, item 1 alleges:

Section 5(a)(1) of the Occupational Safety and Health Act of 1970:

- A. The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees. Employees were exposed to the hazard of being struck by manual tongs at the Wolfe Guinn Renfro #4 Drilling Site, off of County Road 4461 near Boyd, TX as a result of using a Woolley Super "B" Rotary Tong which had been fitted with bolt not complying with the manufacturer's specification. An ASTM A307 bolt (0.5 inch x 4.0 inch approximate measurements) was installed on the lever of the tong to secure the tong line where a 0.75 inch x 4 inch, Grade 5 screw bolt was specified. One feasible and acceptable abatement method to correct is hazard is to (1) Use parts which comply with the manufacturing specifications when repairing tongs, and, (2) Train employees who use tongs to recognize the importance of using correct parts and to promptly report the need for repairs.

- B. The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees. Employees were exposed to the hazard of being struck by a Woolley Super "B" Rotary Tong at the Wolfe Guinn Renfro #4 Drilling Site, off of County Road 4461 near Boyd, TX as a result of the work practice of using the breakout tong and rotary power to accomplish the initial breakout of tool joints. Among other methods, one feasible and acceptable abatement method to correct this hazard is to (1) Use both sets of tongs when drill string tool-joint connections are initially broken out and, (2) Ensure employees are clear of the tongs before they are heavily torqued during both "making up" and "breaking out" activities.

Discussion

Use of a single tong. CO Boudloche and Gary Bagnall, a registered professional engineer with a specialty in petroleum engineering (Tr. 175), explained the standard method of removing or "tripping out" pipe from a drill hole. According to the witnesses, each stand of pipe is pulled from the hole in the rotary table in the floor of the rig. "Slips," or chocks are inserted between the pipe and the sides of the hole in the rotary table to prevent the pipe from slipping back into the hole (Tr. 28, 32, 185). The uppermost stand is then disconnected or "broken" from the pipe remaining in the hole (Tr. 27, 185-86). The connection between the top stand of pipe and the pipe remaining in the hole is broken by means of two tongs. One tong, the "back-up tong" is secured to the pipe below the connection and tied off by means of a snub line to a derrick leg or another stationary part of the drilling rig. The second tong, or "breakout tong," is attached to the stand of pipe above the connection. A tong line is run through a tong pin at the outermost end of the breakout tong arm (Tr. 45, 186; Exh. C-3). The tong line is attached to a winch or "cat head" (Tr. 28, 49-50, 185-189; Exh. C-11). When the winch is engaged, the breakout tong exerts force on the top segment of pipe, causing it to turn, and breaking the connection (Tr. 185-189; Exh. C-11). The back-up tong is then removed, and the rotary table is engaged, spinning the pipe in the hole and unscrewing it from the top segment of pipe. The freed stand is then set back into the derrick (Tr. 189).

CO Boudloche testified that the petroleum industry recognizes a safety hazard in using only one tong to break out pipe (Tr. 99). Mr. Bagnall testified that the drilling industry recognizes that making the initial break on a pipe connection with the rotary table is an unsafe practice (Tr. 181, 206). Bagnall stated that his conclusion was based on his experience in the industry, and his research into the issue following the accident giving rise to this case. According to both Bagnall and Boudloche, the power is more easily controlled when two tongs are used (Tr. 99, 165, 167, 197). Bagnall explained that the clutch on the winch allows the driller to apply steadily increasing force, and to judge the amount of torque being exerted, while the rotary table engages immediately at 75-85 rpm (Tr. 197-98). In

addition, Bagnall testified, when the rotary is engaged to break out pipe, the slips holding the pipe can come loose. The slips may strike personnel standing in the area. Without the slips holding the pipe in place, the drill pipe can fall back into the hole, taking the tong down to the rotary table (Tr. 201-02).

Both Bagnall and Boudloche pointed to the American Petroleum Institute's **Recommended Practice for Occupational Safety for Oil and Gas Well Drilling and Servicing Operations. 9.8.2**, which states:

Rotary table power shall not be used to accomplish initial breakout of tool joints. The rotary table can be used for spinning out joints once initial breakout is effected.

(Tr. 61, 86, 205, Exh. C-9).

Randy Miles, Patterson's operations manager (Tr. 277), testified that Patterson instructs its drilling personnel to use two sets of tongs when tripping out pipe (Tr. 292). Miles testified that Patterson's operating procedures and API recommended practice 9.8.2 are intended to protect, not employees, but drill pipe, from damage. According to Miles, if the joint does not break immediately, the slips can turn, and bend or scar the pipe (Tr. 282). Miles testified that although many employee injuries on oil rigs can be attributed to tongs, those injuries are generally incurred while the tongs are swinging loose on the pendulums from which they are suspended (Tr. 304). According to Miles, the accident that killed Mr. Crocker was not similar to any other tong accident with which he was familiar (Tr. 286, 305). Miles admitted, however, that ¶9.8.2 is part of the API's recommended occupational safety practices and is intended to address employee safety (Tr. 295-96).

David Cain, Patterson's safety director (Tr. 310), testified similarly that the tong manufacturer recommends breaking out pipe using two tongs to protect drill pipe (Tr. 316). Cain stated that the manufacturer does recognize a possible safety hazard in using the rotary table to break out pipe, in that the slips can fly out and injure employees (Tr. 316-17). Cain testified that, prior to the incident on Respondent's rig near Boyd, Texas on April 13, 2001, he had never heard of an accident like the one involving Mr. Crocker (Tr. 330). Cain admitted that API recommended practice 9.8.2 is intended to address employee safety to some extent, but argued that operational issues are often contained in safety documents (Tr. 303, 344-45).

Violation of §5(a)(1). In order to prove a violation of section 5(a)(1) of the Act, the Secretary must show that: (1) a condition or activity in the employer's workplace presented a hazard to employees, (2) the cited employer or the employer's industry recognized the hazard, (3) the hazard was causing or likely to cause death or serious physical harm, and (4) a feasible and useful means of

abatement existed by which to materially reduce or eliminate the hazard. *Kokosing Constr. Co., Inc.*, 17 BNA OSHC 1869 (No. 92-2596, 1996).

The citation identifies the hazard in this case as “the work practice of using the breakout tong and rotary power to accomplish the initial breakout of tool joints.” The parties agree that the cited practice is not approved in the oil drilling industry. Patterson, however, maintains that the industry eschews the practice solely because it can damage drill pipe. Contrary to Patterson’s assertions, the preponderance of the evidence establishes that the industry also regards the practice as an occupational hazard. Complainant’s expert, Gary Bagnall, is a consultant with a degree in petroleum engineering and 25 years of experience in the field (Tr. 171-175). Mr. Bagnall is a past member of the American Petroleum Institute, which sets the operating and safety standards for the petroleum industry (Tr. 175-76). Mr. Bagnall testified that the cited practice is recognized in the industry as unsafe, and points to the API recommended practice at ¶9.8.2, which prohibits the use of the rotary table to accomplish initial break out. The Commission has consistently held that industry guidelines like the API are evidence of industry recognition of a hazard. *See e.g. Beverly Enterprises, Inc.*, 19 BNA OSHC 1161, 2000 CCH OSHD ¶32,227 (Nos. 91-3144, 92-238, 92-819, 92-1257, 93-724, 2000); *Kokosing Constr. Co., Inc., supra*. Moreover, both of Patterson’s employee witnesses admitted that the cited API practice is intended to address occupational safety and health issues. Both parties agree that the practice can dislodge the slips which hold the drill pipe in place. Patterson’s safety director, David Cain admitted that the possibility of the slips flying out was recognized by the tong manufacturer. Mr. Bagnall described the obvious consequence of losing the slips, *i.e.* the drill pipe falls back into the hole, taking the massive tong down with it. Though he described the tong striking the rotating table only as a “situation where you’ve lost control” (Tr. 202), clearly, such an event could pose a risk of serious harm to employees in the swing radius of the tong. The preponderance of the evidence shows that using the rotary table to accomplish the initial breakout of pipe joints is recognized as hazardous in the oil drilling industry.

Patterson argues that none of the witnesses had never heard of an accident exactly like the one which resulted in Mr. Crocker’s death. However, that the April 13, 2001 accident was not specifically foreseeable is not a defense in a 5(a)(1) action. In *Wiley Organics, Inc.*, 17 BNA OSHC 1586, 1996 CCH OSHD ¶31,035 (No. 91-3275, 1996), the Commission noted that “[t]he risk of injury to employees, not the specific incident or accident that results in injury, is the relevant consideration in determining the existence of a recognized hazard.” *Id.* at 1594.

It is undisputed that the cited hazardous practice was in use at Patterson's Boyd work site, with the knowledge of Patterson's supervisory personnel. The abatement measures suggested by the Secretary, *i.e.*, using both sets of tongs when initially breaking out connections, and ensuring that employees are out of the tongs' swing radius when breaking out, are feasible. According to Patterson's employees, the two tong method is generally used at its work sites. There is no evidence in the record establishing any need for employees to be standing in the swing radius of the tongs during initial breakout.¹ Rather, CO Boudloche testified that Patterson's safety program prohibits employees standing between the tongs when joints are broken using the two tong method (Tr. 101). Respondent introduced a Safety Meeting Topic and Report form from its acknowledged industry leader (*see*, Respondent's Post Hearing Brief, p. 1), the International Association of Drilling Contractors (IADC), which states: "Stand clear of tongs when making up or breaking" (Exh. R-7).

Complainant has established the violation cited at citation 1, item 1B.

The bolt. The broken tong pin bolt was a 1/2 inch, grade 2 carriage bolt (Tr. 23). According to CO Boudloche, Patterson's vice president, Mark Cullifer, and its safety director, David Cain, told her that a 3/4 inch, grade 5 bolt was specified to attach the tong pin (Tr. 26, 52, 56). Boudloche testified that she spoke with a representative of the tong's manufacturer, who confirmed that a 3/4 inch, grade 5 bolt should be used to secure the tong pin (Tr. 106-07). Mr. Bagnall testified that the intended bolt had over four times the tensile strength of the bolt actually used in the tong at the time of the accident (Tr. 207-08, 230). David Cain testified, however, and Mr. Bagnall agreed, that, when used as intended, the bolt in question was not a load bearing bolt (Tr. 216, 316, 321). Bagnall stated that the way the tong line was rigged in this case caused the load to be transferred to the bolt (Tr. 192, 198, 214-15). At the time of the accident, the tong line was used as a snub line (*i.e.*, it was anchored to a stationary portion of the derrick). The snub line was attached to the tong pin by means of a "clevis or shackle bolt." The short snub line caused force to be applied on the tong line at an angle "less than perpendicular to the tong" (Tr. 198, 213; Exh. C-1, at C). According to Bagnall, the rigging caused a component of force to run parallel down the tong arm and shear the tong pin bolt (Tr. 215). It was

¹ Keeping employees out of the tong's swing radius during breakout is cited not as a recognized hazard, but as a feasible means of abatement in the October 5, 2001 citation. The evidence, however, shows that on March 7, 2001 a Patterson floor-hand was hit by a tong and thrown across the floor, fracturing his forearm, when the driller engaged the rotary instead of the winch. The injured employee was expecting the breakout tong to move, but the back-up tong swung around instead, striking the employee (Tr. 296-97, 354; Exh. C-10, R-13). This judge notes that the March 7, 2001 accident should have placed Patterson on notice that employees standing within the swing radius of the tongs during breakout are at risk of being struck, regardless of whether one or two tongs are used.

Bagnall's opinion that the rigging caused the tong pin to fail (Tr. 192, 215-16). Furthermore, Bagnall opined, had a 3/4 inch, grade 5 bolt been in use, the tong line would have failed at some other location (Tr. 199, 215-16). Nonetheless, Bagnall believed that replacing any part with a smaller, lower grade material introduces the possibility of failure and so creates a hazard (Tr. 210).

Violation of §5(a)(1). The Secretary provides no evidence in support of Mr. Bagnall's bald assertion that *anytime* a manufacturer supplied part is replaced with an "inferior," *i.e.*, smaller, or weaker part, such substitution constitutes a recognized hazard. Complainant did not produce any manufacturer's specifications in this case, and, in effect, asks this judge to find that the hazard created by the replacement of manufacturer supplied parts with lower grade components is so obvious that it need provide no further proof that the practice constitutes a recognized hazard.

This judge finds that Mr. Bagnall's unsupported statement regarding replacement parts is insufficient to relieve the Secretary of her burden of establishing the existence of a recognized hazard. *See, So. Ohio Bldg. Sys., Inc. v. OSHRC*, 649 F.2d 456 (6th Cir. 1981). Both parties agree that the tong pin bolt, when rigged as intended, is a non-load bearing bolt. In the absence of a showing that Patterson, or the oil drilling industry in general, recognized that the bolt became load bearing when rigged at less than 90 degrees, this judge cannot find that the replacement of the tong pin bolt with a lesser quality bolt constituted a recognized hazard.

Moreover, it is clear from Mr. Bagnall's testimony that he believed improper rigging was responsible for both the shearing of the tong pin bolt, and the resulting danger of being struck by the rotating tong. Mr. Bagnall flatly stated that the use of a higher grade bolt would not have abated the hazard caused by the improper rigging. Under these circumstances, this judge cannot find that the abatement described in the citation, "[using] parts which comply with the manufacturing specifications when repairing tongs, and, [training] employees who use tongs to recognize the importance of using correct parts and to promptly report the need for repairs," would materially reduce or eliminate the hazard.

Complainant failed to establish the violation set forth at citation 1, item 1A.

Penalty

The Secretary proposes a penalty of \$6,300.00. In determining the penalty the Commission is required to give due consideration to the size of the employer, the gravity of the violation and the employer's good faith and history of previous violations. The gravity of the offense is the principle factor to be considered. *Nacirema Operating Co.*, 1 BNA OSHC 1001, 1972 CCH OSHD ¶15,032

(No. 4, 1972). In determining the gravity of a violation, factors to be considered include: (1) the number of employees exposed to the risk of injury; (2) duration of exposure; (3) precautions taken against injury, if any; and (4) the degree of probability of occurrence of injury. *Kus-Tum Builders, Inc.* 10 BNA OSHC 1049, 1981 CCH OSHD ¶25,738 (No. 76-2644, 1981).

Patterson is a large employer with over 215 employees (Tr. 69-70). It received no citations in the three years prior to October 5, 2001, and the Secretary included a 10% reduction in the size of her proposed penalty based on Patterson's good history (Tr. 70). No credit for good faith was included in the proposed penalty because of the severity of the hazard (Tr. 70). At least one employee was exposed to the hazard described in citation 1, item 1B. The injuries suffered by Patterson employees demonstrate that being struck by the tong can result in broken bones, internal injuries, and/or death (Tr. 203-04). The evidence suggests that it was not Patterson's usual practice to use the rotary table to break out pipe, though Mr. Moreno's statement indicates that the method had been used before, with the knowledge of supervisory personnel. The evidence establishes that the likelihood of an accident resulting solely from the use of rotary power to break out pipe is overstated. None of the witnesses were aware of a similar incident. The accident which led to Patterson's citation might not have occurred but for the confluence of the cited practice and other factors not listed in the citation, *i.e.*, the improper rigging of the snub line.

Taking into account the relevant factors, including the fact that Complainant failed to prove item 1A of the citation, this judge finds that a penalty of \$4,000.00 is appropriate.

ORDER

1. Citation 1, item 1, alleging violation of §5(a)(1) is AFFIRMED and a penalty of \$4,000.00 is ASSESSED.

/s/
Benjamin R. Loye
Judge, OSHRC

Dated: September 12, 2002