



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.

OSHRC Docket No. 18-1864

HENKELS & MCCOY, INC.,

Respondent.

ON BRIEFS:

Scott Glabman, Senior Appellate Attorney; Brian A. Broecker, Senior Attorney; Heather R. Phillips, Counsel for Appellate Litigation; Edmund C. Baird, Associate Solicitor of Labor for Occupational Safety and Health; Elena S. Goldstein, Deputy Solicitor of Labor; U.S. Department of Labor, Washington, D.C.

For the Complainant

Carol A. Field, Esq.; Morgan, Lewis & Bockius LLP, Miami, FL

For the Respondent

DECISION

Before: ATTWOOD, Chairman; LAIHOW, Commissioner.

BY THE COMMISSION:

Henkels & McCoy, Inc., is a utility construction, design, and engineering contractor headquartered in Blue Bell, Pennsylvania. On May 2, 2018, an H&M employee was fatally injured while using a digger derrick to remove a utility pole. Following the incident, the Occupational Safety and Health Administration conducted an inspection and issued H&M a citation alleging a serious violation of the Occupational Safety and Health Act's general duty

clause, 29 U.S.C. § 654(a)(1),¹ for exposing employees to struck-by and crushing hazards by failing to properly maintain the digger derrick's bolts.²

Administrative Law Judge John B. Gatto vacated the citation. For the following reasons, we reverse the judge, affirm the citation, and assess the proposed penalty of \$12,934.

BACKGROUND

On the day of the incident, two H&M employees, a crew leader and an apprentice, were using an Altec DC47 series digger derrick to remove a utility pole in Jacksonville, Florida. The digger derrick is about the size of a dump truck and its flatbed is outfitted with a boom and an operator's chair atop a pedestal, which is attached to the truck's subframe and chassis. Eighteen rotation bearing mounting bolts³ connect the gear ring, upon which the operator's chair and boom sit, to the flange atop the pedestal.

Altec's maintenance and parts manual instructs owners of its digger derricks to conduct annual torque tests of these bolts with a calibrated torque wrench.⁴ Altec also placed a warning decal on the digger derrick pedestal, which states: "WARNING – FAILURE TO INSPECT AND PROPERLY TORQUE THE ROTATION BEARING MOUNTING BOLTS CAN CAUSE STRUCTURAL FAILURE. DEATH OR SERIOUS INJURY COULD RESULT. Keep capscrews properly torqued to prevent fastener fatigue."⁵ (capitalization in original.)

¹ The general duty clause provides that "[e]ach employer . . . shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees." 29 U.S.C. § 654(a)(1).

² OSHA initially alleged that this failure extended to three other digger derricks housed in H&M's Jacksonville, Florida, fleet maintenance facility, but they were dismissed from the case when an unopposed motion made by H&M at the hearing was granted. The citation also alleged a violation of 29 C.F.R. § 1926.28(a) for failing to ensure that employees were wearing appropriate personal protective equipment, but this item was withdrawn prior to the hearing.

³ We refer to these as bolts, although throughout the record they are sometimes referred to as fasteners or capscrews.

⁴ As explained by the Secretary's expert at the hearing, torque is a measurement of a twisting force and a torque wrench, unlike other wrenches, measures the tightness of bolts and can be set to a manufacturer's torque specification.

⁵ This decal also appears in Altec's maintenance and parts manual in a section titled "Accident Prevention Signs."

Prior to 2007, H&M mechanics performed inspections of the company's fleet of digger derricks, which included torque testing. That year, H&M entered into a "handshake" agreement with a third-party contractor, Diversified Inspections/ITL Inc., to provide inspection services semi-annually for H&M's digger derricks in the company's central and west regions.⁶ From 2011 to 2016, the two companies entered into a series of agreements and executed documents setting forth the scope of Diversified's digger derrick inspections for H&M. After completing a digger derrick inspection, the Diversified inspector would fill out a report that noted any problems or issues found with the equipment. That report would then be sent to H&M or otherwise made available for H&M managers to review. Beginning in February 2018, Diversified's inspection reports included a disclaimer stating that the company was not performing torque testing. The parties do not dispute that neither H&M nor Diversified was torque testing the digger derrick bolts at the time of the incident and OSHA's inspection.

When the incident occurred, the crew leader was seated in the digger derrick's operator's chair and the apprentice was working from the ground. After they both heard a "creak," the crew leader immediately stopped operating the digger derrick and instructed the apprentice to investigate. He discovered that one of the flange's eighteen bolts had "sheared" off and was on the bed of the truck. The apprentice then checked the other bolts and informed the crew leader they were tight.⁷ When the crew leader resumed moving the boom, the apprentice again heard sounds and jumped off the truck. He then turned, at which point he saw the boom falling and the crew leader being ejected from the operator's chair to the pavement below. The crew leader later died from his injuries.

DISCUSSION

To prove a violation of the general duty clause, the Secretary must establish that: (1) a condition or activity in the workplace presented a hazard; (2) the employer or its industry recognized the hazard; (3) the hazard was causing or likely to cause death or serious physical harm; and (4) a feasible and effective means existed to eliminate or materially reduce the hazard. *Arcadian Corp.*, 20 BNA OSHC 2001, 2007 (No. 93-0628, 2004). The Secretary must also show that the employer knew or, with the exercise of reasonable diligence, could have known of

⁶ H&M's Jacksonville maintenance facility is located in its central region. Another company, Terex, was conducting digger derrick inspections for H&M in its eastern region.

⁷ It is not clear from the record how the apprentice checked these bolts—e.g., visually or with a wrench.

the hazardous condition. *Tampa Shipyards, Inc.*, 15 BNA OSHC 1533, 1537 (No. 86-0469, 1992).

In the citation, the Secretary alleges that H&M violated the general duty clause by exposing its employees to hazards resulting from the company's failure to properly maintain the digger derrick bolts in accordance with Altec's maintenance and parts manual. In vacating the citation, the judge redefined the alleged hazard as a design defect in the bolts at issue, which Altec announced in a recall notice,⁸ and not, as the citation alleged, H&M's failure to properly maintain these bolts. The judge relied on this new hazard definition throughout most of his analysis, concluding that the Secretary failed to establish that (1) the improperly maintained bolts posed a significant risk of harm; (2) H&M or its industry was aware of the design defect; and (3) torque testing in accordance with the manual would effectively reduce any risk of injury resulting from the defective bolts.⁹ On review, the Secretary challenges all of the judge's findings and maintains that the record establishes H&M's knowledge of the violative conditions. In response, H&M defends the judge's findings and argues that even if a violation has been established, the company reasonably relied on Diversified to torque test the bolts, and, in any event, the incident was the result of unpreventable employee misconduct.

As a threshold matter, we find that the judge plainly erred by redefining the alleged hazard in terms of what may have caused the fatal incident. *See Arcadian Corp.*, 20 BNA OSHC at 2008 (“[I]t is the hazard, not the specific incident that resulted in injury or might have resulted in injury, that is the relevant consideration in determining the existence of a recognized hazard.” (citing *Kelly Springfield Tire Co.*, 10 BNA OSHC 1970, 1973 (No. 78-4555, 1982))). Here, the citation properly defined the alleged violation in terms of “conditions or practices over which” the company had control—the maintenance of the digger derrick's bolts—and “apprised [H&M] of its obligations”—to ensure they are properly torqued. *Davey Tree Expert Co.*, 11 BNA OSHC 1898, 1899 (No. 77-2350, 1984). Contrary to the judge's analysis, Altec's issuance of a recall notice for the digger derrick's bolts has no bearing on the Secretary's allegation in the citation. Therefore, we analyze each element of the alleged violation with respect to the conditions set forth in the citation, not in terms of the incident or the design defect.

⁸ This recall notice, issued on October 26, 2018, stated: “These [digger derrick] units have rotation bearing fasteners that can break. The broken rotation bearing fasteners can possibly cause uncontrolled movement resulting in death or serious injury.”

⁹ The judge did not address whether H&M had knowledge of the hazardous condition.

I. Hazard

“To prove that a condition presents a hazard under the general duty clause, the Secretary is required to show that . . . employees [were exposed] to a ‘significant risk’ of harm.” *A.H. Sturgill Roofing, Inc.*, 27 BNA OSHC 1809, 1810-11 (No. 13-0224, 2019) (quoting *Beverly Enters., Inc.*, 19 BNA OSHC 1161, 1170-72 (No. 91-3144, 2000) (consolidated)). The Secretary establishes the existence of a hazard “if the hazardous incident can occur under other than a freakish or utterly implausible concurrence of circumstances.” *Waldon Health Care Ctr.*, 16 BNA OSHC 1052, 1060 (No. 89-2804, 1993) (consolidated) (citing *Nat’l Realty & Constr. Co. v. OSHRC*, 489 F.2d 1257, 1265 n.33 (D.C. Cir. 1973)). In finding that the Secretary failed to establish H&M employees were exposed to a significant risk of harm, the judge credited H&M’s expert witness, Dr. Glenn Stevick, who opined that the bolts on the digger derrick involved in the incident were sufficiently tight¹⁰ and their failure was due primarily to the design defect identified by Altec’s recall notice.

On review, the Secretary argues that the judge’s ruling is contrary to the manufacturer’s decal that appears on the digger derrick itself, as well as testimony from his expert, Phillip Toone. We agree. The judge’s reliance on Stevick’s testimony was misplaced because his opinions rested almost entirely on the bolts’ design defect and the role the defect allegedly played in the incident, neither of which is relevant to this inquiry. As the Secretary points out, Stevick’s testimony is also contrary to the manufacturer’s decal, which clearly warns that employees can be seriously injured or even killed if the bolts are not inspected and properly torqued.

Toone, on the other hand, testified that failing to torque test the bolts could result in fatigue failure, which could cause the bolts to “back[] out and fall[] out” of the flange-to-gearing connection and eventually cause the digger derrick to collapse. Unlike Stevick, Toone specifically addressed the cited conditions and his testimony is consistent with the manufacturer’s decal.¹¹ Therefore, we accord greater weight to Toone’s testimony and find that

¹⁰ According to Stevick’s testimony and his expert report, testing on other H&M digger derrick units after the incident revealed that those bolts were all within 10% of Altec’s specifications. Such evidence, however, is irrelevant to determining whether H&M’s undisputed failure to torque test the bolts posed a significant risk of harm.

¹¹ Toone also testified that even tight bolts eventually fatigue from use and can create a life-threatening incident.

the Secretary has proven the existence of a hazard that exposed H&M employees to a significant risk of harm.

II. Recognition

The Secretary must prove either that “a hazard . . . is recognized as such by the employer” or by “general understanding in the [employer’s] industry.” *Otis Elevator Co.*, 21 BNA OSHC 2204, 2208 (No. 03-1344, 2007) (citing *Kokosing Constr. Co.*, 17 BNA OSHC 1869, 1873 (No. 92-2596, 1996)). The Secretary can establish actual recognition by, among other things, showing that a supervisor was aware of the hazard. *See Integra Health Mgmt., Inc.*, No. 13-1124, 2019 WL 1142920, at *8 (OSHRC Mar. 4, 2019) (work rules and supervisor awareness establish employer recognition of workplace violence hazard); *Mo. Basin Well Serv., Inc.*, 26 BNA OSHC 2314, 2316 (No. 13-1817, 2018) (supervisor’s knowledge of hazard imputable to employer and establishes employer recognition). Industry recognition can be proven through manufacturers’ communications or industry standards that “contain a safety warning or suggest a link between noncompliance and a safety hazard.” *K.E.R. Enters., Inc.*, 23 BNA OSHC 2241, 2243 (No. 08-1225, 2013). Relying on his erroneous finding that the hazard at issue here was the design defect, the judge concluded that the Secretary failed to establish recognition because neither H&M nor its industry was aware of the bolts’ design defect at the time of the incident.

On review, the Secretary claims that H&M recognized the hazard resulting from the improperly maintained bolts because Bill Kokemor, H&M’s director of fleet operations, testified that he had read and understood the Altec manual’s torque testing procedure, and knew that a relevant American National Standards Institute (ANSI) standard—ANSI/ASSE A10.31, *Safety Requirements Definitions and Specifications for Digger Derricks* (2013)—required H&M to follow that procedure. Kokemor, however, merely agreed that he was “aware of what’s involved in Altec’s recommended torque testing procedure of digger derricks”—as such, his testimony does not establish that he in fact recognized that a failure to follow that procedure would result in the cited hazard. *Cf. Young Sales Corp.*, 7 BNA OSHC 1297, 1298 (No. 8184, 1979) (supervisor testified that he “not only read the brochures,” but also warned employees of hazard posed by walking directly on corrugated asbestos sheeting). The Secretary also points to the warning decal as evidence that H&M had actual recognition of the hazard, but the record lacks any evidence that Kokemor, or any other H&M management official, was aware of or familiar with

the decal's warning. Therefore, we find the Secretary failed to prove actual recognition of the hazard.

In terms of industry recognition, the Secretary relies on two paragraphs in ANSI A10.31—¶ 8.2.3, which recommends that digger derrick owners and operators look for damaged, loose, deformed, or missing bolts before each work shift, and ¶ 8.2.4, which recommends that owners and operators perform an inspection at least once every twelve months that checks the condition and tightness of bolts in accordance with manufacturer's recommendations. But neither ANSI paragraph links an employer's failure to follow these guidelines to the alleged struck-by and crushing hazard. See *K.E.R. Enters.*, 23 BNA OSHC at 2243-44 (“[T]he AWWA standard [does not] state that a failure to comply with their content creates a hazard[.]”); *Oberdorfer Indus.*, 20 BNA OSHC 1321, 1326 (No. 97-0469, 2003) (consolidated) (“ANSI standards in evidence here do not establish that Oberdorfer's industry recognized that using hooks without latches presented a hazard of the load falling and striking an employee.”). Therefore, the ANSI standard does not establish industry recognition.

We find, however, that the manufacturer's decal, which plainly warns that failure to torque the bolts properly can cause a “structural failure,” resulting in “death or serious injury,” constitutes industry recognition. See *Young Sales*, 7 BNA OSHC at 1297 n.1 (recognition of hazard posed by walking on corrugated asbestos sheeting shown by brochure notices, including one stating: “WARNING! Care should be taken never to walk on an exposed corrugated transite roof”). Although H&M claims that Altec's manual does not “even hint that [a] failure to torque test can cause structural failure” and “the absence” of the decal's warning in the manual renders the warning “ambiguous at best,” neither of these arguments has merit. The decal is in fact included in the manual in the section titled “Accident Prevention Signs” and it could not more plainly explain that failing to torque the bolts can cause the digger derrick to fall apart, exposing employees to serious harm. The manufacturer also chose to prominently display the decal on the machine itself. Accordingly, we find that the Secretary established industry recognition.

III. Abatement

“The Secretary must specify the proposed abatement measures and demonstrate both that [they] are capable of being put into effect and that they would be effective in materially reducing the incidence of the hazard.” *Beverly*, 19 BNA OSHC at 1190. “Feasible means of abatement are established if ‘conscientious experts, familiar with the industry’ would prescribe those means

and methods to eliminate or materially reduce the recognized hazard.” *Arcadian Corp.*, 20 BNA OSHC at 2011 (quoting *Pepperidge Farm, Inc.*, 17 BNA OSHC 1993, 2032 (No. 89-0265, 1997) (citing *Nat’l Realty*, 489 F.2d at 1257). Here, the Secretary alleges that a feasible method of abatement is to “ensure that the ALTEC [digger] derrick . . . being used had the bolts tested according to the ALTEC maintenance and parts manual,” which states “[c]heck all fasteners for tightness as recommended by the Preventative Maintenance and Inspection Checklist” with “particular attention to” the “[r]otation bearing mounting cap screws.”

H&M does not dispute that torque testing is both economically and technologically feasible.¹² The only question, therefore, is whether doing so would be effective in materially reducing the cited hazard. Again, we agree with the Secretary that the judge erred by couching his conclusion that torque testing would not effectively reduce the risk of injury in terms of the bolts’ design defect. As Toone’s testimony makes clear, “the simplest way [to abate the cited hazard] is to just perform torque testing because that would ensure that those fasteners . . . are torqued to the proper specification.” Torque testing, according to Toone, “stretches the bolt in tension, which applies a pre-loaded tension to the fastener, which protects it from fatigue failure,” a condition that, as noted, would eventually cause the bolts to “back[] out and fall[] out” of the digger derrick. Toone also explained that torque testing permits “worn-out or deformed bolts to fail and be replaced in a safe and controlled environment,” as the Altec manual calls for all bolts to be replaced if one breaks during such testing.

In rebuttal, the company points to testimony from Stevick that torque testing would not have materially reduced the hazard because it would not have revealed the design defect the company contends was the cause of the incident here. But, as discussed above, Stevick’s opinions in this regard are irrelevant because they focus only on whether torque testing would have prevented the incident.¹³ *See Arcadian Corp.*, 20 BNA OSHC at 2011-12 (“The focus is on abating the recognized hazard, which may not have prevented the incident that resulted in the

¹² It is undisputed that H&M had control over its digger derricks and conducted torque testing in-house before contracting with Diversified. During that time, if H&M discovered a loose bolt on one of the digger derricks, it would either torque the bolt in-house or hire Altec to do so. In addition, Shelby Mathis, H&M’s Jacksonville construction manager at the time of the incident, testified that H&M hired Ring Power to torque test the bolts on its digger derricks after the incident. *See Sci. Applications Int’l Corp.*, No. 14-1668, 2020 WL 1941193, at *8 (OSHRC Apr. 16, 2020) (proposed abatement feasible where employer had already implemented measure post-incident and employer provided no evidence it could not have done so at the time of the incident).

injury.” (citing *Kelly Springfield Tire Co.*, 10 BNA OSHC at 1973)). As such, neither his report nor his testimony rebuts Toone’s expert opinion that torque testing the bolts would materially reduce the cited hazard.¹⁴ In addition, the company’s position is directly contrary to the manufacturer’s warning decal, which sets forth the very same means of abatement proposed here by the Secretary. See *Young Sales*, 7 BNA OSHC at 1297 n.1, 1299 (Secretary established proposed abatement methods were feasible where manufacturer’s written instructions warned that “[w]orkmen must use” these very methods for “all roofing work”); see also *Arcadian Corp.*, 20 BNA OSHC at 2011-12 (cited employer’s industry recognized one of Secretary’s proposed abatement measures). Accordingly, we find the Secretary established the feasibility and efficacy of his proposed abatement measure.

IV. Knowledge

Finally, the Secretary must also prove that “the employer knew or, with the exercise of reasonable diligence could have known of the hazardous condition.” *Peacock Eng’g Inc.*, 26 BNA OSHC 1588, 1592 (No. 11-2780, 2017) (citing *PSP Monotech Indus.*, 22 BNA OSHC 1303, 1305 (No. 06-1201, 2008)). “[T]he Secretary must show knowledge of the *conditions* that form the basis of the alleged violation; not whether the employer had knowledge that the conditions constituted a hazard.” *Cent. Fla. Equip. Rentals, Inc.*, 25 BNA OSHC 2147, 2155 (No. 08-1656, 2016) (emphasis in original). A supervisor’s knowledge of the hazardous condition can be imputed to the employer. *Rawson Contractors, Inc.*, 20 BNA OSHC 1078,

¹³ Stevick stated in his report that the digger derrick “[b]olts would have to be near 50% of their specified torque to have an effect on [b]olt fatigue” and that was “highly unlikely” here. Therefore, he concluded that low bolt torque did not play a role in the fatal incident. We reject this conclusion as irrelevant because it focuses on the cause of the incident, rather than the alleged hazard. See n.10, *supra*.

¹⁴ H&M argues, based upon Stevick’s testimony that a lower torque was better for the defective bolts, that torquing the digger derrick bolts to the manufacturer’s specification would have created a greater hazard. See *Acme Energy Servs.*, 23 BNA OSHC 2121, 2127 (No. 08-0088, 2012) (“If the proposed abatement ‘creates additional hazards rather than reducing or eliminating the alleged hazard, the citation must be vacated for failure to prove feasibility’ ” (quoting *Kokosing*, 17 BNA OSHC at 1875 n.19)), *aff’d*, 542 F. App’x 356 (5th Cir. 2013) (unpublished). This claim, however, is directly rebutted by Toone’s testimony that although lower torque may have better accommodated the design defect, the likelihood of separation between the flange and gear ring, which can lead to structural failure, increases when the bolts are not tightened to the manufacturer’s specification. In any event, we note that it is undisputed that neither H&M nor Diversified was conducting *any* torque testing at the time of the incident and OSHA’s inspection.

1080 (No. 99-0018, 2003). As noted, the judge did not address this element of the Secretary's burden of proof.¹⁵

Actual Knowledge

The Secretary argues that H&M had actual knowledge of the violative condition—the company's failure to maintain the digger derrick's bolts by torque testing them—on two grounds, both which we find lack support in the record. First, the Secretary points out that H&M's agreements and communications with Diversified did not provide for torque testing and the disclaimer Diversified included in its inspection reports in the months leading up to the incident show that the contractor was not torque testing, and all of H&M's fleet managers and supervisors had access to these reports. The record, however, lacks evidence that any H&M management official had in fact read and understood the inspection report's disclaimer or understood that the two companies' agreements did not include torque testing. Therefore, we find that those documents do not establish that H&M had actual knowledge of its failure to torque test.

Second, the Secretary claims that H&M managers observed Diversified's digger derrick inspections and therefore had actual knowledge that torque testing was not being performed. According to Brett Smith, a Diversified inspector, he always used a regular wrench, not a torque wrench, to check each digger derrick's bolts and an H&M fleet manager, Lee Rich, would stand "over [his] shoulder . . . kind of watching [him] do a whole inspection." Diversified's vice president of sales Russell also testified that H&M "audited our [inspectors] multiple times. [H&M supervisor] Bobby Reynolds . . . watched them do a complete inspection and never once said anything about [the inspector] not torquing the rotation bearing bolts."

But neither one of the H&M supervisors referenced by Smith and Russell testified at the hearing and the two H&M managers who did appear as witnesses gave contrary accounts. Mathis, H&M's Jacksonville construction manager at the time of the incident, testified that he had never "seen [Smith] actually do an inspection" or anyone else "from Diversified." And according to Steve Dix, H&M's fleet maintenance and programs coordinator at the time of the

¹⁵ Rather than remand to the judge to address this unresolved issue in the first instance, we find that the record is sufficient for us to determine whether the Secretary established the knowledge element. *C.f., e.g., A.E.Y. Enters.*, 21 BNA OSHC 1658, 1659 (No. 06-0224, 2006) (remanding since judge normally first makes factual findings, which "allows the Commission to exercise its review function and is particularly beneficial in cases involving close questions of fact"). In addition, the parties have fully briefed the issue, and H&M has expressly asked that we exercise our authority to review the entire case and rule on this issue. *See* 29 C.F.R. § 2200.92(a).

incident, it was not H&M’s practice to “look over the[] shoulder[s of contractors] and see what they’re doing.” Furthermore, neither Smith nor Russell explained how the H&M supervisors were ever in a position to actually determine what type of wrench the Diversified inspector was using to tighten the bolts. *Cf. Kan. Power & Light Co.*, 5 BNA OSHC 1202, 1204 (No. 11015, 1977) (actual knowledge established where supervisory employee directly observed violative conduct). For these reasons, we consider the consistent testimony from H&M’s two supervisors more persuasive than that of Diversified’s inspector and vice president. *See Metro Steel Constr. Co.*, 18 BNA OSHC 1705, 1706-07 (No. 96-1459, 1999) (based on “totality of the evidence, and . . . the respective ability of each witness to observe the incidents” at issue, finding that weight of testimony requires resolving ambiguity against Secretary). Therefore, we find that the Secretary failed to establish actual knowledge.

Constructive Knowledge

The Secretary can establish constructive knowledge “where the evidence shows that the employer ‘could have known about [the cited condition] with the exercise of reasonable diligence.’ ” *Greenleaf Motor Express, Inc.*, 21 BNA OSHC 1872, 1874-75 (No. 03-1305, 2007) (quoting *Hamilton Fixture*, 16 BNA OSHC 1073, 1087 (No. 88-1720, 1993)), *aff’d*, 262 F. App’x 716 (6th Cir. 2007) (unpublished). Reasonable diligence turns “on several factors, including an employer’s obligation to . . . anticipate hazards, [and] take measures to prevent violations from occurring” *Jacobs Field Servs. N.A.*, 25 BNA OSHC 1216, 1218 (No. 10-2659, 2015), *aff’d*, 659 F. App’x 181 (5th Cir. 2016) (unpublished). Reasonable diligence also requires an employer to make reasonable inquiries when alerted to potential hazards. *See Pride Oil Well Serv.*, 15 BNA OSHC 1809, 1811 (No. 87–692, 1992) (finding lack of reasonable diligence when crew supervisor fielded employee complaints yet failed to make inquiries into contents of mobile storage tank and the hazards they might pose).

The Secretary argues that H&M failed to exercise reasonable diligence here because the company never asked Diversified to torque test the digger derrick bolts during its inspections and did not negotiate a price for that service. The Secretary also claims that H&M failed to “inquir[e]” whether Diversified was torque testing, despite the fact that a 2016 agreement between the two companies did not include the service and Diversified’s inspection reports in the months leading up to the incident “clearly stated” that the contractor was not doing such testing. H&M responds that communications between Russell and Kokemor leading up to the 2016

agreement established that Diversified would perform ANSI-compliant inspections of H&M's digger derricks and did not carve out an exception for torque testing. H&M also argues that the torque testing disclaimer on Diversified's reports is "self-contradictory" because these reports also state that inspections were performed "in accordance [with] ANSI A10.31 & OSHA 1926," which would have included torque testing.

While the evidence relating to Diversified's relationship with H&M and torque testing is not a model of clarity, we agree with the Secretary that H&M could have known Diversified was not performing torque testing during its digger derrick inspections with the exercise of reasonable diligence. First, the scope of work agreement for H&M's central region that both parties executed in 2011 simply states that "rotation bearing bolts are to be checked for tightness with a wrench." Following discussions with H&M in 2016, Russell sent a letter and pricing schedule to Kokemor stating that "[d]igger derricks . . . are ANSI inspected every 180 days." But the letter did not list torque testing in the pricing schedule, and Russell confirmed that it was not included. While Kokemor testified that he did not recall Russell telling him that torque testing was not included in the inspection price, he also admitted that he did not ask Russell whether Diversified was torque testing the bolts. *See Greenleaf*, 21 BNA OSHC at 1875 ("failure to make reasonable inquiries regarding" substances client introduced into tankers "establishe[d] that Greenleaf failed to exercise reasonable diligence"); *Automatic Sprinkler Corp. of Am.*, 8 BNA OSHC 1384, 1387 (No. 76-5089, 1980) ("employer must make a reasonable effort to anticipate the particular hazards to which its employees may be exposed").

Second, reasonable diligence required H&M to take some action to determine whether torque testing was being performed, such as asking Diversified whether such testing was included in its inspections or taking time to review even one of the inspection reports Diversified had recently provided. *See Blount Int'l Ltd.*, 15 BNA OSHC 1897, 1900 n.3 (No. 89-1394, 1992) ("Far from requiring the contracting employer to duplicate the safety efforts of the specialist, the Act demands only that general contractors apprise themselves of which safety efforts their specialty subcontractors have chosen to make in completing their assignments."). Contrary to H&M's claim, these inspection reports were not "self-contradictory" regarding torque testing. Immediately following the title page on which H&M relies is a page headed by the capitalized word "DISCLAIMER" followed by language expressly stating that "[i]t is the customer's responsibility to torque and maintain all bearing bolts in accordance with the

equipment manufacturer’s specifications to ensure that all bolts are properly torqued.” Given this plain disclaimer—which was included in multiple inspection reports submitted to H&M in the months preceding the incident—as well as H&M’s failure to make any effort to determine whether Diversified was torque testing the digger derrick bolts, we find the Secretary has established that H&M failed to exercise reasonable diligence and, accordingly, had constructive knowledge of the violative condition.

V. Affirmative Defenses

H&M asserts two affirmative defenses to the violation, both of which we reject. First, the company claims that it reasonably relied on Diversified to perform torque testing as part of its digger derrick inspections and therefore lacked constructive knowledge of the violative condition. *Manua’s, Inc.*, No. 18-1059, 2018 WL 6171790, at *3-4 (OSHC Sept. 28, 2018), *aff’d*, 948 F.3d 401 (D.C. Cir. 2020) (“Reasonable reliance on a specialty contractor . . . is an affirmative defense to constructive knowledge, and therefore Respondent had the burden of proof.”). *See also Sasser Elec. & Mfg. Co.*, 11 BNA OSHC 2133, 2136 (No. 82-178, 1984) (finding cited employer’s reliance on hired crane operator to maintain sufficient distance from power lines reasonable because its employees had never operated cranes, it had no reason to foresee crane operator would violate standard, and cited hazard fell within operator’s expertise), *aff’d*, No. 84-1961, 1985 WL 1270163 (4th Cir. Aug. 8, 1985) (unpublished).¹⁶

We disagree. Unlike the employer in *Sasser*, H&M had expertise in this area because it had torque tested the digger derrick bolts prior to hiring Diversified, and H&M mechanics exercised day-to-day control over the machines. Moreover, Diversified’s inspection reports made clear that the company was not performing torque testing, yet H&M made no effort to review these reports and did not otherwise inquire as to whether Diversified was torque testing. *See Manua’s*, 2018 WL 6171790, at *3 (“An employer may not assume a subcontractor has taken required safety precautions without reasonable inquiry.”) (citing *Blount*, 15 BNA OSHC at

¹⁶ We reject the Secretary’s argument that H&M waived its reasonable reliance defense because it was not pled in the company’s answer or raised in its pre-trial statement. H&M did, in fact, raise reasonable reliance in its pre-trial statement, and the parties’ joint pre-trial statement also states that the parties would litigate the issue. Therefore, the Secretary was aware of H&M’s claim that it reasonably relied on Diversified to conduct torque testing. *See Bill C. Carroll Co.*, 7 BNA OSHC 1806, 1812 n.17 (No. 76-2748, 1979) (affirmative defense allowed when Secretary was on notice defense would be litigated and did not make a showing that allowing the defense would prejudice his case).

1900 n.3). Finally, unlike the violative condition in *Sasser*, the violative condition here was not momentary or fleeting—in fact, the record shows it was more likely than not that Diversified had never provided torque testing for H&M. *See Fabi Constr. Co. v. Sec’y of Labor*, 508 F.3d 1077, 1083 (D.C. Cir. 2007) (employer’s reliance on contractor when decking collapsed not reasonable because, among other things, hazard existed over “span of several weeks”).

Second, H&M claims that the decedent engaged in unpreventable employee misconduct because he violated the company’s work rule requiring operators to stop using equipment when a piece breaks or fails, and that this rule had been adequately communicated to its employees. *See ComTran Grp., Inc. v. U.S. Dep’t of Labor*, 722 F.3d 1304, 1308 (11th Cir. 2013) (to establish misconduct defense, employer must show it “(1) created a work rule to prevent the violation at issue; (2) adequately communicated that rule to its employees; (3) took all reasonable steps to discover noncompliance; and (4) enforced the rule against employees when violations were discovered.”). In making this argument, however, the company focuses on the cause of the incident rather than on its alleged failure to properly maintain the bolts on its digger derricks, which, as discussed above, is the basis for the violation. In any event, H&M provides no evidence establishing the monitoring or enforcement elements of its alleged defense.

For all these reasons, we reverse the judge, affirm Serious Citation 1, Item 1, and assess the proposed penalty of \$12,934.¹⁷

SO ORDERED.

/s/ _____
Cynthia L. Attwood
Chairman

/s/ _____
Amanda Wood Laihow
Commissioner

Dated: July 21, 2022

¹⁷ The parties do not dispute the proposed penalty amount on review. *See K.S. Energy Servs., Inc.*, 22 BNA OSHC 1261, 1268 n.11 (No. 06-1416, 2008) (assessing proposed penalty amount where the parties did not dispute it).



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.

HENKELS & MCCOY, INC.,
Respondent.

OSHRC Docket No. 18-1864

DECISION AND ORDER

Attorneys and Law firms

Charna C. Hollingsworth-Malone, Attorney, Office of the Solicitor, U.S. Department of Labor, Atlanta, GA, for Complainant.

Carol A. Field, Morgan, Dennis J. Morikawa, Attorneys, Lewis & Bockius, LLP, Miami, FL, Philadelphia, PA, for Respondent.

JUDGE: John B. Gatto, United States Administrative Law Judge.

I. INTRODUCTION

This case involves a tragic accident that occurred on May 2, 2018, when an employee of Henkels & McCoy, Inc. (“H&M”) was injured while attempting to remove a utility pole and later died from his injuries. The United States Department of Labor, through its Occupational Safety and Health Administration (“OSHA”), investigated the accident and subsequently issued¹⁸ a serious¹⁹ citation under the Occupational Safety and Health Act of 1970 (the “Act”), 29 U.S.C.

¹⁸ The Secretary of Labor has assigned responsibility for enforcement of the Act to OSHA and has delegated his authority under the Act to the Assistant Secretary for Occupational Safety and Health, who heads OSHA. See Order No. 4–2010 (75 FR 55355), as superseded in relevant part by 1–2012 (77 FR 3912). The Assistant Secretary has redelegated his authority to OSHA’s Area Directors to issue citations and proposed penalties. See 29 C.F.R. §§ 1903.14(a) and 1903.15(a). The terms “Secretary” and “OSHA” are used interchangeably herein.

¹⁹ The Act contemplates various grades of violations of the statute and its attendant regulations—“willful”; “repeated”; “serious”; and those “determined not to be of a serious nature” (the Commission refers to the latter as “other-than-serious”). 29 U.S.C. § 666. A serious violation is defined in the Act; the

§§ 651-678.²⁰ The citation alleged a violation of section 5(a)(1) of the Act, commonly known as the “general duty clause” and proposed a penalty of \$12,934.00. After H&M timely contested the citations, the Secretary of Labor filed a formal complaint with the Commission seeking an order affirming the citation and proposed penalty.²¹ A bench trial was held in Jacksonville, Florida, and in Phoenix, Arizona.

The Court finds that at all relevant times H&M was engaged in a business affecting commerce and was an employer within the meaning of sections 3(3) and 3(5) of the OSH Act. (Stip. ¶E(1).)²² Further, the Court concludes the Commission has jurisdiction over the parties and subject matter in this case. (*Id.* ¶ E(2).) Pursuant to Commission Rule 90, after hearing and carefully considering all the evidence and the arguments of counsel, the Court issues this Decision and Order as its findings of fact and conclusions of law.²³ All arguments not expressly addressed have nevertheless been considered and rejected. For the reasons indicated *infra*, the Court **VACATES** the citation without a civil penalty assessment.

II. BACKGROUND

H&M is part of the utility industry and its employees perform general utility line maintenance, including storm restoration and utilizes derrick diggers, among other things, to conduct its work. (Tr. at 831, 1219.) A digger derrick is a specialized type of equipment designed to install utility poles and typically comes equipped with augers to drill holes for the poles, and with a hydraulic boom to lift the poles and set them in the holes. (Cranes and Derricks in Construction: Revising the Exemption for Digger Derricks, 78 Fed. Reg. 32110-01 (May 29, 2013)). A digger derrick is about the size of a dump truck, but instead of a dumping mechanism, the digger derrick’s flatbed is outfitted with a captain’s chair, atop a pedestal, and a boom. (Tr. at

other grades are not.

²⁰ Although the citation initially included a second item alleging a personal protective equipment violation under 29 § CFR 1926.28(a), it was withdrawn by the Secretary prior to trial.

²¹ Attached to the Complaint and adopted by reference was the citation at issue (Compl., Ex. A). Commission Rule 30(d) provides that “[s]tatements in a pleading may be adopted by reference in a different part of the same pleading or in another pleading or in any motion. A copy of any written instrument which is an exhibit to a pleading is a part thereof for all purposes.” 29 C.F.R § 2200.30(d). Although the Secretary’s original citation included a second item alleging a violation of 29 C.F.R § 1926.28(a), OSHA’s personal protective equipment standard, the Secretary withdrew that item prior to trial.

²² See *Jt. Prehearing State*.

²³ If any finding is in truth a conclusion of law, or if any stated conclusion is in truth a finding of fact, it shall be deemed so.

91, 94; *see also* Ex. C-1, p. 15.) A steel pedestal is used to attach the digger derrick to the subframe and chassis. (Ex. R-48, p. 1.) Rotation bearing mounting bolts (“bolts”)²⁴ were used to secure the pedestal. (Tr. 515-16; *see also* Ex. C-18, p. 2; Ex. R-2, p. 2.)

[redacted], H&M’s crew leader at the worksite, died on May 2, 2018 as a result of a tragic accident. (Tr. 88.) On the day of the accident, [redacted] and Ronnie Aldrich, an apprentice, were assigned to a pole-pulling operation as part of H&M’s contract with Jacksonville Electrical Authority. (Stip. ¶¶ D1, D7(a) - D7(f).) [redacted] was sitting in the operator’s seat of one of H&M’s digger derricks removing an existing utility pole and Aldrich was standing on the ground, when Aldrich heard the digger derrick “creak” and a bolt popped out of the bottom of the pedestal under [redacted]’s captain’s chair. (*Id.* at ¶D7.) [redacted] immediately stopped operations and asked Aldrich to get on the digger derrick to investigate. (*Id.*) When Aldrich investigated, he told [redacted] there was a bolt on the bed of the digger derrick. (*Id.*) [redacted] told Aldrich to check the rest of the bolts to see if they were tight. (*Id.*) After checking, Aldrich told [redacted] that none of the remaining bolts were loose. (*Id.*) [redacted] told Aldrich the bolt had sheared off and they would get it checked “after this pole.” (*Id.*) Aldrich made a final check to see if the boom had lifted off the digger derrick’s platform (i.e., to see if there was any space or separation between the boom and the platform) and told [redacted] there was not. (*Id.*) [redacted] told Aldrich to get down and “keep an eye on it” and as Aldrich turned to get down, [redacted] started to move the boom. (*Id.*) Aldrich heard sounds and jumped off the digger derrick and as he turned, the boom detached from the platform and fell and [redacted] was launched out of his seat and landed face first on the pavement. (*Id.*) [redacted] later died as a result of his injuries. (*Id.*)

III. ANALYSIS

The fundamental objective of the Act is to prevent occupational deaths and serious injuries. *Whirlpool Corp. v. Marshall*, 445 U.S. 1, 11 (1980). Thus, “[t]he Act’s purpose is straightforward: ‘to assure so far as possible safe and healthful working conditions’ for ‘every working man and woman in the Nation.’ ” *Sec’y, U.S. Dep’t of Labor v. Action Elec. Co.*, 868 F.3d 1324, 1333 (11th Cir. 2017) (*quotations omitted*).²⁵ “The Secretary has rulemaking power

²⁴ Although the parties, witnesses and documentary evidence sometimes referred to the rotation bearing mounting bolts as rotation bearing mounting cap screws, rotation bearing cap screws, or rotation bearing fasteners, the Court uses the term rotation bearing mounting bolts or bolts.

²⁵ The employer or the Secretary may appeal a Commission order to the federal court of appeals for the circuit in which the violation allegedly occurred or where the employer has its principal office, and the

and establishes the safety standards; investigates the employers to ensure compliance; and issues citations and assesses monetary penalties for violations.” *ComTran Grp., Inc. v. U.S. Dept. of Labor*, 722 F.3d 1304, 1307 (11th Cir. 2013). The Commission, meanwhile, has adjudicative power and serves “as a neutral arbiter and determine whether the Secretary’s citations should be enforced over employee or union objections.” *Cuyahoga Valley Ry. Co. v. United Transp. Union*, 474 U.S. 3, 7 (1985) (per curiam).

To implement the purpose of the Act, “Congress imposed dual obligations on employers,” “a ‘general duty’ to free the workplace of all recognized hazards” and “a ‘special duty’ to comply with all mandatory health and safety standards.” *ComTran*, 722 F.3d at 1307. However, under either the general or special duty clause, a hazard does not itself establish a violation. *United States v. Mar-Jac Poultry, Inc.*, 756 F. App’x 856, 862–63 (11th Cir. 2018). “OSHA can only issue general duty clause citations where it has not promulgated a regulation covering a particular situation at an employer’s worksite.” *Roberts Sand Co., LLLP v. Sec’y of Labor*, 568 F. App’x 758, 759 (11th Cir. 2014). Here, although OSHA has promulgated a regulation covering Cranes and Derricks in Construction, it exempted digger derricks used for augering holes for poles carrying electric or telecommunication lines, placing and removing the poles, and for handling associated materials for installation on, or removal from, the poles. 29 C.F.R. § 1926.1400(c)(4). Thus, the Secretary was authorized to issue general duty clause citation.

A. Alleged General Duty Clause Violation

An employer commits a “general duty” clause violation when he fails to “furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.” 29 U.S.C. § 654(a)(1). The Secretary alleges H&M violated the general duty clause when it “exposed employees to struck-by and crushing hazards, in that; it did not ensure rotation bearing cap screws on Altec Digger Derricks (to include but not limited to units 44505; 44474; 44475;

employer also may appeal to the District of Columbia Circuit. *See* 29 U.S.C. §§ 660(a) and (b). The alleged violation occurred in Florida, which is in the Eleventh Circuit and the company’s principal office is in Pennsylvania, which is in the Third Circuit. The Commission has held that “[w]here it is highly probable that a case will be appealed to a particular circuit, the Commission generally has applied the precedent of that circuit in deciding the case— even though it may differ from the Commission’s precedent.” *Kerns Bros. Tree Serv.*, 18 BNA OSHC 2064, 2067 (No. 96-1719, 2000). This Court applies the precedent of the Eleventh Circuit in deciding the case where it is highly probable that the case will be appealed.

44473) were being properly maintained.” (Compl., Ex. A.) The diggers derricks at issue in this case were the Altec DC47 series. (Stip. ¶¶D9-D12.)

To prove a violation of the general duty clause in the Eleventh Circuit, the Secretary must establish by a preponderance of the evidence “that ‘(1) the employer failed to render its work place free of a hazard; (2) the hazard was recognized; ... (3) the hazard caused or was likely to cause death or serious physical harm’ and ‘(4) the hazard [was] preventable.’” *Pepper Contracting Servs. v. Occupational Safety & Health Admin.*, 657 F. App'x 844, 847-48 (11th Cir. 2016) (omission in original) (citation omitted). Further, under binding Fifth Circuit precedent,²⁶ the general duty clause “requires the employer to eliminate only ‘feasibly preventable’ hazards.” *Champlin Petroleum Co. v. Occupational Safety & Health Review Comm'n*, 593 F.2d 637, 640 (5th Cir. 1979) (citation omitted). For the reasons indicated *supra*, the Court concludes the Secretary has failed to prove three of the four elements of his *prima facie* case.

Whether Hazard Was Present

Although the term “hazard” is not defined in the Act, the Eleventh Circuit has explained it “refers to the risk of injury as a result of the condition[.]” *Fla. Lemark Corp. v. Sec'y, U.S. Dep't of Labor*, 634 F. App'x 681, 687 (11th Cir. 2015). The Commission has also held “it is the hazard, not the specific incident that resulted in injury or might have resulted in injury that is the relevant consideration in determining the existence of a recognized hazard.” *Arcadian Corp.*, 20 BNA OSHC 2001, 2008 (No. 93-0628, 2004) (citations omitted). Here, the Secretary argues the “risk of injury” was being crushed-by or struck-by the boom as a result of H&M’s failure to properly maintain the bolts. The Court does not agree with the Secretary’s definition of the hazard. As indicated *infra*, the preponderance of evidence establishes that the “condition” was not H&M’s failure to properly maintain the bolts, but rather, was a manufacture’s defect that existed in the Altec DC47 series diggers derricks. Thus, the Court concludes the Secretary failed to define the hazard in a way that apprised H&M of its obligations and identified conditions or

²⁶ The Eleventh Circuit was created when the Fifth Circuit split on October 1, 1981. *See* Fifth Circuit Court of Appeals Reorganization Act of 1980, P.L. 96-452, 94 Stat. 1995. The Eleventh Circuit has adopted the case law of the former Fifth Circuit handed down as of September 30, 1981, as its governing body of precedent. *Bonner v. City of Prichard*, 661 F.2d 1206, 1209 (11th Cir. 1981). This body of precedent is binding unless and until overruled by the Eleventh Circuit en banc. *Id.* Further, the decisions of the continuing Fifth Circuit's Administrative Unit B are also binding on the Eleventh Circuit, while Unit A decisions are merely persuasive. *Dresdner Bank AG v. M/V Olympia Voyager*, 446 F.3d 1377 (11th Cir. 2006).

practices over which H&M could reasonably be expected to exercise control. Therefore, the Court concludes the Secretary has failed to establish the existence of a hazard.

The Secretary's expert, Phillip Toone,²⁷ explained:

Fasteners are used to assemble [the] components. When forces are subjected to the resulting assembly, [the] fasteners must remain intact for the assembly to remain integral. Forces subjected to an assembly, and consequently the fasteners that hold it together, can be classified as either static or dynamic. Static forces are straight forward in that they can be subjected to an assembly in a single test to demonstrate that the assembly is capable of withstanding the static force. In the case of dynamic loading, materials can and will fatigue causing them to fail after an unknown number of cycles.

...

Engineers take advantage of this and specify torque parameters to protect fasteners from destructive dynamic loading. Torque specifications are typically communicated to those responsible for repair and maintenance of equipment through owner[']s manuals and/or maintenance/repair manuals. Failure to heed these requirements will subject the fastener to dynamic loading and eventual fatigue failure. Engineers may identify a particular connection in an assembly that warrants extra attention to ensure protection against dynamic loading. Periodic torque testing of the fasteners for such a connection may be required to ensure safe operation of the assembly. A torque test will often be as straight forward as simply applying a specified torque to the fastener to ensure it is tight enough to protect it from dynamic loading. Alternatively or in addition to torque testing fasteners may be marked to provide visual confirmation that the fastener has been torqued and that it has not rotated after being torqued.

(Ex. C-18, pp. 4-5, 6.)²⁸ Mr. Toone opined the bolts “failed through the mechanism of fatigue.” (Tr. 551, 552-53.) As Mr. Toone explained, “it's important that fasteners are torqued to a proper specification because doing so reloads the fastener with tensile stress as it's compressing the material that it's clamping down on.” (Tr. 529.) Put another way, “the primary purpose for doing that” is “that the torquing process stretches the bolt in tension, which applies a pre-loaded tension to that fastener, which protects it from fatigue failure.” (Tr. 537.) “Doing this protects the fastener against cyclic or dynamic loading, which can result in fatigue failure.” (Tr. 529.) By

²⁷ Mr. Toone has been an engineer since 2003 and has been an engineer with OSHA's Salt Lake Technical Center since 2010. (See Ex. C-18; see also Ex. R-7.) He has a Master of Science degree in mechanical engineering and in aerospace engineering. (*Id.*; see also *id.*) He has never previously testified as an expert. (*Id.*) He has experience in ensuring bolted connections (or fasteners) maintain their structural integrity by understanding their strength, resistance to corrosion, assembly, and problems with use. (See Tr. 515.) He testified as a mechanical engineer with a focus on fastener integrity. (*Id.* 522.)

²⁸ Mr. Toone uses the term “fastener” when referencing the rotation bearing mounting bolts. (Tr. at 515-516.) “A fastener, in a very generic broad sense, is anything that fastens parts of an assembly together ... it applies to both bolts and screws” (*Id.*)

way of example, Mr. Toone explained that fatigue failure could be compared to bending a piece of wire until it eventually breaks. If you bend wire once, it may not break. But after five, ten or a thousand bends, it will. (*Id.* 538.) Thus, fasteners, when used and loaded as part of a bolt assembly, would be compared to bending a wire. (*See generally, id.*)

Mr. Toone also opined that “there is an additional benefit to torquing these fasteners, in addition to helping protect against fatigue, that because these fasteners had experienced some damage due to microcracks and corrosion that they were going to fail at a lower threshold than they would if there were no damage.” (*Id.*; *see also* Tr. 532) Thus, torque testing of these bolts “would have provided an opportunity for them to fail in a safe and controlled environment revealing that they were no longer fit for service. This would have prompted the replacement of all of the ... [bolts].” (Ex. C-18, p. 6, ¶ G.) Mr. Toone opined that failing to follow the manufacturer’s instructions, including torque testing the bolts to the manufacturer’s prescribed torque values, created a hazard. (Tr. 537; *see also* Ex. C-18, p. 6, ¶ D.v.)

However, H&M’s expert, Dr. Glen Stevick,²⁹ disagreed with Mr. Toone’s conclusions, and opined “the torque evidence found in the sister units 44474 and 44475 (they were tight and at specification) and Altec’s use of a patch thread lock indicate the subject bolts were almost certainly tight and at specification. ... There is no evidence to support a theory of loose bolts. Rather, the available evidence suggests the bolts were tight.” (Ex. R-2, p. 2.) In Dr. Stevick’s expert opinion, the loss of torque and preload in the bolts *could* result in a fatigue failure of the bolts *if* separation of the components being bolted together occurred because the cyclic load that would normally be transferred through the components would then be transferred through the bolts. (Ex. R-2, p. 5) (emphasis added). Thus, Dr. Stevick opined the available evidence indicated that separation did not occur. (*Id.*) The Court credits Dr. Stevick’s expert opinion, which is consistent with Aldrich’s statement, the only eyewitness, that after the bolt broke, the boom had *not* lifted off the digger derrick’s platform (i.e., there was no space or separation

²⁹ Dr. Stevick is Mechanical Engineer, Principal, with a Ph.D. in Mechanical Engineering. (*See* Ex. R-2.) He has been an engineer since 1981 and has been a Principal, Consultant with Berkeley Engineering And Research, Inc. since 1986 and has over 35 years of experience in failure analysis, design, damage mechanics (corrosion, fracture, fatigue, creep, etc.) and risk assessment of: structures; stadium roofs; industrial equipment; medical devices such as aortic stents, hip and knee implants and spinal rod implants; exercise equipment; turbines and reciprocating engines; automotive and aircraft components; offshore platforms for wind generation and oil exploration; pressure vessels and piping systems; blowdown, blowout and breakaway systems; heat exchangers, boilers and furnaces; and electronic controls and interlocks for battery systems, consumer products and industrial equipment. (*Id.*)

between the boom and the platform). Therefore, the Court concludes the Secretary has failed to establish the existence of a hazard resulting from improper maintenance of the bolts.

Further, even assuming the Secretary's is correct that the "condition" was H&M's failure to properly maintain the bolts, the Court nonetheless concludes he has failed to show employees were exposed to a significant risk of harm. "To prove that a condition presents a hazard under the general duty clause, the Secretary is required to show that ... employees [were exposed] to a 'significant risk' of harm." *Sci. Applications Int'l Corp., d/b/a Saic*, 2020 WL 1941193, at *4 (No. 14-1668, 2020) (quoting *A.H. Sturgill Roofing, Inc.*, 27 BNA OSHC 1809, 1810-11 (No. 13-0224, 2019) (quoting *Beverly Enters., Inc.*, 19 BNA OSHC 1161, 1170-72 (No. 91-3144, 2000) (consolidated)). As indicated *supra*, the Court credits Dr. Stevick's expert opinion and concludes H&M's employees were not exposed to a significant risk of harm from improper maintenance of the bolts since "the available evidence suggests the bolts were tight."

Significantly, Dr. Stevick further opined "the failure was primarily due to an under-designed (pedestal/ring gear) bolted connection that subjected the rotation bearing mounting cap screws ('bolts') to excessive cyclic tensile and bending stresses." (Ex. R-2, pp. 2, 8; *see also* Tr. 951-52.) As Dr. Stevick explained, "the highest tensile stress is on the outer surface," and when the bolt circle was bent from the boom falling, "the failure was on the inside of the bolt instead of the outside relative to the center of the bolt circle." (Tr. 902-03.) "That means that those flanges were pried and not stiff enough in design. And sure enough that's what the calculations showed." (Tr. 903.) Dr. Stevick explained:

[T]he fatigue crack initiation and growth has occurred on the inner side of the bolts. In other words, the side toward the center of the gear ring and bolt circle. If the bolted connection halved (gear ring and pedestal flange) were adequately stiff, crack initiation would occur at the furthest point from the center of the gear ring and bolt circle, or at least exhibited cracking all the way around. Instead, flexing of the pedestal flange is causing the bolt to bend[.] This opinion is based on my detailed stress analysis of several similar crane and man lift pedestal/ring gear failures using finite element analysis (FEA) and experience in bolted connections consulting with Bigge Crane and Rigging, the Golden Gate Bridge and numerous other clients that are heavy users of bolted connections.

(Ex. R-2, p. 3; *see also id.* Fig 2, Fig 3.) Dr. Stevick further explained:

[I]f the pedestal flange was adequately stiff, the Bolts would experience their maximum stress at the first thread of engagement with the threads of the ring gear,² and would have fatigued and failed at that location. However, the Bolts failed outside the thread engagement with the ring gear. This clearly indicates the

maximum stresses were outside the thread engagement area and due to local bending of the Bolts caused by excessive pedestal flange flexing.

(*Id.* p. 4.) The Secretary's expert, Mr. Toone, admitted he had called Altec and confirmed the tensile strength of the bolts were "akin to something over a Grade 8," which "tend to be more brittle than a lower grade bolt." (Tr. 567-68.) The Court credits Dr. Stevick's expert opinion, which was not refuted by Mr. Toone. Thus, the Court concludes the preponderance of evidence shows the bolt failure was primarily due to a design defect.

Whether Hazard Was Recognized

"[A] 'recognized hazard' is a condition that is 'known to be hazardous.'" *Georgia Elec. Co. v. Marshall*, 595 F.2d 309, 321 (5th Cir. 1979) (citation omitted). "This element can be established by proving that the employer had actual knowledge that a condition is hazardous." *Id.* "It may also be shown by proving that the condition is generally known to be hazardous in the industry." *Id.* "It does not depend upon whether the particular employer appreciated that the [condition] was a recognized hazard in the industry." *Id.*

Altec issued a recall notice on October 26, 2018, almost six months *after* the fatality occurred, which indicated that a defect existed in the DC47 units that had "rotation bearing fasteners that can break" and "possibly cause uncontrolled movement resulting in death or serious injury." (Ex. R-48, p. 4.) The Secretary failed to proffer any evidence that either H&M or the industry was aware of the manufacture's defect prior to Altec's issuance of its recall notice. Therefore, the Secretary has failed to establish the condition was generally known to be hazardous to H&M or in the industry at the time of the accident.

Whether Hazard Was Preventable

The Secretary has the "burden to show that demonstrably feasible measures would materially reduce the likelihood that such injury as that which resulted from the cited hazard would have occurred." *Champlin Petroleum*, 593 F.2d at 640 (citation omitted). Thus, the Secretary "must specify the particular steps the employer should have taken to avoid citation, and he must demonstrate the feasibility and likely utility of those measures." *Id.* The Secretary asserts one feasible and acceptable method of abatement would have been "to ensure that the ALTEC derrick digger being used had the bearing bolts tested according to the ALTEC's maintenance and parts manual." (Compl., Ex. A.)

The Court concludes the Secretary failed to establish the likely utility of those measures since he failed to establish that ensuring the bolts were tested in accordance with the manufacturer's maintenance manual "would be effective in materially reducing the incidence of the hazard," *A.H. Sturgill Roofing, Inc.*, 2019 WL 1099857, at *8 (No. 13-0224, 2019), since the risk of injury was a result of the manufacturer's defective bolts. Put another way, even if H&M had ensured the bolts were tested in accordance with the manufacturer's maintenance manual, the Secretary failed to establish it "would effectively reduce the hazard," i.e., effectively reduce the risk of injury as a result of the manufacturer's defective bolts. *Champlin*, 593 F.2d at 641.

For the reasons indicated *infra*, the Court concludes the Secretary has failed to prove all of the elements of his prima facie case. Accordingly,

IV. ORDER

IT IS HEREBY ORDERED THAT Citation 1 Item 1 is **VACATED** and no civil penalty is assessed.

SO ORDERED.

/s/
First Judge John B. Gatto

Dated: November 2, 2020
Washington, D.C.