

## HEADNOTE:

*The Whiting-Turner Contracting Co. v. Comm'r of Labor & Indus.*, No. 2655, September Term 2016

### GENERAL DUTY CLAUSE; RECOGNIZED HAZARD; SUBSTANTIAL EVIDENCE

Pursuant to Md. Code (2016 Repl. Vol.) § 5-104(a) of the Labor and Employment (“LE”) Article, “[e]ach employer shall provide each employee of the employer with employment and a place of employment that are: (1) safe and healthful; and (2) free from each recognized hazard that is causing or likely to cause death or serious harm to the employee.”

To establish a violation of the General Duty Clause, Maryland Occupational Safety and Health (“MOSH”) must prove: (1) a condition or activity in the workplace presented a hazard to employees; (2) the hazard was “recognized”; (3) the hazard was likely to cause death or serious physical harm; and (4) “feasible means to eliminate or materially reduce the hazard existed.” *SeaWorld of Florida, LLC v. Perez*, 748 F.3d 1202, 1207 (D.C. Cir. 2014) (quoting *Fabi Constr. Co. v. Sec’y of Labor*, 508 F.3d 1077, 1081 (D.C. Cir. 2007)). *Accord Nat’l Realty & Constr. Co. v. Occupational Safety & Health Review Comm’n*, 489 F.2d 1257, 1265 (D.C. Cir. 1973). If MOSH fails to produce evidence showing each element of a violation, the record does not contain substantial evidence to support a finding in MOSH’s favor. *SeaWorld*, 748 F.3d at 1208.

“Establishing that a hazard was recognized requires proof that the employer had actual knowledge that the condition was hazardous or proof that the condition is generally known to be hazardous in the industry.” *Kelly Springfield Tire Co. v. Donovan*, 729 F.2d 317, 321 (5th Cir. 1984). *Accord St. Joe Minerals Corp. v. Occupational Safety & Health Review Comm’n*, 647 F.2d 840, 845 (8th Cir. 1981) (“A hazard is deemed ‘recognized’ when the potential danger of a condition or activity is either actually known to the particular employer or generally known in the industry.”) (quoting *Usery v. Marquette Cement Mfg. Co.*, 568 F.2d 902, 910 (2d Cir. 1977)). Whether a work condition constitutes a recognized hazard is a question of fact. *SeaWorld*, 748 F.3d at 1208.

MOSH failed to prove that Whiting-Turner’s (1) failure to utilize gooser braces and (2) use of the spacer beams were “recognized” hazards. With respect to the gooser braces, MOSH’s sole evidence to support its theory that the lack of gooser braces was a recognized hazard was the manufacturer’s brochure for the shoring tower, which stated that the positioning of gooser braces “start when the extension frame is put at a 2’ or more extension.” The brochure, however, did not suggest that the use of gooser braces was a safety requirement or that the failure to use them could cause injury. With respect to the spacer beams, MOSH’s expert testified that he had not previously seen a set up of the spacer beams similar to that utilized by Whiting-Turner. The expert, however, did not testify that this set up was a recognized hazard within the industry. Indeed, he testified that

Whiting-Turner's use of "the W8x10 [spacer beam] did not fail in the normal jacking operation," but rather, it failed only when "the SE jack was used to raise the double tee." There was not substantial evidence in the record to support a finding of a recognized hazard to support a citation for a violation of the General Duty Clause.

REPORTED  
IN THE COURT OF SPECIAL APPEALS  
OF MARYLAND

No. 2655

September Term, 2016

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WHITING-TURNER CONTRACTING  
COMPANY

v.

COMMISSIONER OF LABOR AND  
INDUSTRY

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Meredith,  
Graeff,  
Eyler, James R.  
(Senior Judge, Specially Assigned),

JJ.\*

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Opinion by Graeff, J.

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Filed: April 26, 2018

\* Judge Matthew J. Fader did not participate in the Court's decision to designate this opinion for publication pursuant to Md. Rule 8-605.1.

The Whiting-Turner Contracting Company (“Whiting-Turner”), appellant, challenges the decision of the Commissioner of Labor and Industry (the “Commissioner”), appellee, affirming the citation issued against Whiting-Turner for violating Md. Code (2016 Repl. Vol.) § 5-104(a) of the Labor and Employment (LE) Article, known as the General Duty Clause,<sup>1</sup> and ordering Whiting-Turner to pay the fine of \$5,800 levied by the Department of Labor, Licensing and Regulation (“DLLR”), Maryland Occupational Safety and Health (“MOSH”). Whiting-Turner subsequently sought judicial review of the Commissioner’s decision, which the Circuit Court for Baltimore County affirmed.

On appeal, Whiting-Turner presents four questions for this Court’s review, which we have reorganized, as follows:

1. Did the Commissioner err in finding that Whiting-Turner violated the General Duty Clause by failing to utilize cross braces and in utilizing an allegedly insufficient spacer beam?
2. Did the Commissioner err in finding that the General Duty Clause was not preempted by the existence of more specific standards applicable to Whiting-Turner’s activities?
3. Did the Commissioner err in admitting and relying upon the expert testimony of Dr. Jin in finding that Whiting-Turner violated the General Duty Clause?

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<sup>1</sup> Maryland Code (2016 Repl. Vol.) § 5-104(a) of the Labor and Employment (LE) Article, is contained within the Maryland Occupational and Safety Health Act, §§ 5-101 *et. seq.* It states: “Each employer shall provide each employee of the employer with employment and a place of employment that are: (1) safe and healthful; and (2) free from each recognized hazard that is causing or likely to cause death or serious physical harm to the employee.”

4. Did the Commissioner err in admitting and relying upon the report of Dr. Jin in finding that Whiting-Turner violated the General Duty Clause?

For the reasons set forth below, we answer the first question in the affirmative, and therefore, we shall reverse the judgment of the circuit court.<sup>2</sup>

## **FACTUAL AND PROCEDURAL BACKGROUND**

### **I.**

#### **Background**

In May 2013, Whiting-Turner was the general contractor on a construction project at the Westfield Montgomery Mall, in Bethesda, Maryland. Whiting-Turner was working on a project involving the construction of additional floors at the top of an existing garage structure to facilitate “a theater and a food court expansion.” To construct the additional floors, Whiting-Turner developed a plan to remove four pre-stressed concrete sections, known as double tees, from the existing second floor and the roof, to enable the placement of a tower crane inside the garage.<sup>3</sup> Each double tee section was 60-feet long, 9-feet wide, and weighed approximately 42,800 pounds.

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<sup>2</sup> Given our resolution of the first issue, we need not address the other three issues.

<sup>3</sup> “Pre-stressed concrete” is described as concrete containing steel cables or rods that are placed into the concrete once it is poured to reinforce it and deflect tension. A double tee is described as a “horizontal” “precast [concrete] structure,” which is fabricated or manufactured offsite and features “two stems coming down vertically to make it look like two tees [a]butt[ing].”

The two double tees on the roof were removed by a mobile crane and stored nearby. With respect to the two double tees on the second floor, Whiting-Turner planned to reuse them, so it developed a plan to set the double tees aside by a hydraulic jacking and skating method. The plan was to raise, or “jack,” the double tees, “maintaining a level position,” so they could be slid, or skated, onto the parking deck adjacent to their original location, and then placed back in their original location after the work was completed. To support and remove the double tees, Whiting-Turner employed the use of four jacking towers at each of the four corners of the double tee, and four shoring towers were positioned to the outside of the jacking towers.<sup>4</sup> Each shoring tower had the capability to support 44,000 pounds, and the failure capability was two and half times that, 110,000 pounds. Positioned at the top of the towers, Whiting-Turner utilized “a combination of W8 by 10 [and] W8 by 31 beams.”

Four individuals operated the jacking towers to raise the double tee by a “16th to an 8th of an inch.” As those ironworkers were raising or “jacking” the double tee, four additional workers would raise the shoring towers, so that the double tee was supported within “an 8th of an inch.” The lifting process, as described, would occur until the jacking towers “reach[ed] the maximum stroke limit,” and the workers would then transfer “the

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<sup>4</sup> Shoring towers are described as “metal frames . . . stacked one on top of another.” Contained at the bottom of the tower “is a screw jack . . . that sits on a beam . . . and at the top there is also a screw jack with a plate for the beam to sit in on the top of the tower.” A screw jack is described as a horizontal piece on the shoring tower legs, which is “screwed into the bottom of the shoring tower or jacking tower,” and by twisting the horizontal piece, the shoring tower can be raised or lowered.

weight completely to the shoring towers that are outside [of] the jacking [towers], reposition the shoring towers[,] and then repeat the process until [the workers] had lifted the double tee high enough to put it onto beams and skate or slide the double tee” aside. As the jacking process occurred, a foreman for Whiting-Turner “utilized mechanical levels and also laser levels” to ensure that the load was being raised in a leveled manner.

### ***May 23, 2013, Accident***

On the morning of May 23, 2013, workers at the construction site initiated the removal process of the western double tee from the second floor of the garage.<sup>5</sup> The workers successfully jacked the double tee and raised it to two feet, six inches prior to going to lunch. After returning from lunch, the workers re-inspected the double tee and continued the operation. Approximately one hour later, the workers noticed that “[o]ne of the beams was curled on top of the towers,” i.e., it was slightly bent, at the southeast tower. A bent shoring beam signaled that the double tee was “unstable,” and the damaged beam would have to be removed and replaced to ensure the safety of the system.

To facilitate this process, the site foreman, Patrick Bruns, decided that the workers would need to jack the double tee to “take weight off the southeast shoring tower,” and once the weight was adjusted, workers would “switch out” the bent piece. Before the beam could be removed, workers heard a “loud crack” and then “steel crashing down.” The ironworkers contacted emergency services, and the Montgomery County Fire and Rescue

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<sup>5</sup> The first double tee section was removed without incident on May 21, 2013. It took approximately 15 hours to complete.

Service responded to the scene and immediately initiated a rescue operation. As a result of the collapse, one worker died and a second worker, who was pinned by the falling structure, sustained serious bodily injuries.

### ***MOSH Investigation***

Investigators from MOSH arrived at the scene to conduct an accident investigation. David Latham, a compliance specialist with MOSH, arrived that afternoon. He observed the rescue operation and took pictures of the scene to assist with the preparation of MOSH's inspection and investigative report, which was a routine procedure with industrial accidents. MOSH contacted the Directorate of Construction (DOC), federal Occupational Safety and Health Administration (OSHA), for assistance in investigating the incident and the cause of the collapse. Jau "Scott" Jin, Ph.D., an engineer from DOC, visited the construction site on May 24, 2013. Dr. Jin had worked with MOSH on prior inspections involving the agency. At the accident scene, Dr. Jin spoke with Whiting-Turner's construction site superintendent, Scott Peterson, to discuss the jacking procedure, as well as observe the collapse and obtain a full account of what transpired.

### ***KCE's Report***

Engineers from KCE Structural Engineers, P.C. ("KCE") were brought in on the evening of the collapse by Whiting-Turner to assist in an "emergency" make-safe operation." They were retained to "determine the cause and origin" of the accident, as well as "the areas of the garage impacted by the construction incident," and to "design the final make-safe work needed to stabilize the garage structure impacted."

On August 30, 2013, KCE issued its report, which stated that “the partially collapsed tee exhibited a longitudinal crack in the Southeastern and Southwestern stem from the middle quarter toward the North.” KCE noted that when workers returned from lunch they noticed that a beam had “partially buckled (top flange and web were bent  $\pm 1/4$ " to  $1/2$ ") and determined they should replace that piece of steel – the correct thing to do.”

KCE indicated in its report that, based on Whiting-Turner’s drawn configuration, “the W8x10 and W8x31 beams on the ‘safety’ and ‘jacking’ towers ha[d] adequate strength to support the load of the precast double tee even if the entire load [was] concentrated in one location on the beam.” It stated, however, that “the as-designed shoring tower layout may not have been adhered to throughout,” noting that pictures showed “two smaller individual beams [] spanning the shoring towers in the longitudinal direction as opposed to the continuous 8’ W8x10’ spanning both 2’x2’ Adjust-A-Shore® framing towers as shown on WT drawings J1-J5.”

The KCE report further stated: “It appears that the workmen placed short pieces of wide flanges (not per the [Whiting-Turner] drawings) between the longitudinal W8x10s and the double tee stems,” and by doing this, the “wide flanges experienced a compressive load from the weight of the double tee as well as the reaction from the beam below. These loads caused compression in the web. When the capacity of the web is exceeded, the web buckles.” The report concluded that, when “the double tee was jacked and consequently supported unevenly, the weight of the double tee would not be distributed evenly.”

With respect to the shoring system, Safway's "Adjust-A-Shore™ Heavy Duty Shoring," the report highlighted that the extension frames for the shoring towers "were installed in the base tower to achieve the necessary height in some towers with some 2'-0" extension." The manual for Safway's shoring system stated that "extension frames can be used to extend the height of [] Base Frames," and "[w]hen the height of the extension is 2' or greater additional diagonal gooser (cross) braces are needed." The towers, however, had extension frames with a 2' extension, "but no gooser bracing was installed." Without the gooser braces, "additional movement is likely to occur and more force is likely to be introduced into the intra-tower cross bracing."<sup>6</sup> On September 13, 2013, MOSH picked up a copy of KCE's report from the Montgomery County Department of Permitting Services.

### ***Dr. Jin's Report***

In October 2013, Dr. Jin, on behalf of MOSH, released his report regarding the May accident.<sup>7</sup> Dr. Jin's synopsis of the accident indicated that, "[w]hen the two employees from the SE and SW safety towers were removing the buckled beam from the SE safety

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<sup>6</sup> The executive summary in the report concluded: "The 'jacking' tower scaffold legs were extended beyond manufacturer recommendations and extension sections were not braced per manufacturer requirements, which each reduced their load carrying capacity."

<sup>7</sup> Dr. Jin stated in his report that he was a "permanent employee of the U.S. Department of Labor-OSHA," and one of his responsibilities was to provide technical assistance to OSHA cases. He stated that, "[b]esides [his] government salary, [he] [did] not receive any additional compensation for the study and testimony" stemming from the investigation.

tower, the double tee suddenly shifted and fell from the SE hydraulic jack, killing one employee and catching the arm of another.”

Dr. Jin noted that, for the jacking tower, a “10” long and 8” deep W8x31 steel spacer was placed on top of the 36” long upper W8x31 beam to increase the height of the tower and to provide the seat for the hydraulic jack.” Because the spacer and the upper beam were of the same size and their “webs oriented in the same direction,” Dr. Jin opined that this could result in a slight decrease of the rigidity of the jacking tower in the north-south direction. He also noted that, to increase the height of the safety tower and “spread the contact pressure of the concentrated load from the weight of the double tee,” “a spacer beam of the same size was [] placed on top of the 36” long upper W8x[3]1 beam.” This resulted in the “flange of the spacer [beam being] wider than that of the upper beam,” and “the bottom flange of the spacer cantilevered over the top flange of the upper beam,” creating a weak axis of the upper support system along the north-south direction.<sup>8</sup> Dr. Jin concluded that the “weak axis of the safety tower . . . was also in the north-south direction,” and the culmination of “adding the spacer beam on top of the safety tower would significantly decrease the rigidity of the safety tower in the north-south direction.” Dr. Jin’s report stated that, although “the W8x10 did not fail in the normal jacking operation, i.e., four hydraulic jacks to raise the double tee simultaneously,” it was “undersized to support the actual load.”

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<sup>8</sup> Dr. Jin explained that a cantilever beam is one that sticks out, which results in it having only 25% of the capacity a support beam.

The report also concluded that there was a lack of diagonal braces for the safety towers. The manufacturer's instructions required the installation of diagonal gooser braces if the extension frames were raised two feet or more above the base frame. Based on Dr. Jin's observations from the pictures of the accident scene, "the extension frames were raised 2' above the top of the base frame at all four safety towers, but without the required diagonal gooser braces." The omission of the diagonal gooser braces "would decrease the rigidity and impair the stability of the safety tower in the north-south direction."

Ultimately, Dr. Jin concluded that the collapse of the double tee was caused by the following factors: (1) "[t]he placement of the 8" high spacer beam between the double tee stem and the upper W8x10 beam," which "weakened the rigidity of the upper support system on top of the shoring/skating towers in the north south direction"; (2) the "[l]ack of diagonal gooser braces on the extended frames decreased the rigidity of the shoring/skating tower in the north-south direction"; and (3) "[t]he single re-jacking at the SE jacking tower significantly increased the vertical load at the NW shoring/skating tower." As a result of those three factors, "the upper W8x10 beam of the NW shoring/skating tower buckled at its compression flange and initiated the collapse." With respect to the first two factors, Dr. Jin stated: "[1] The failure could have been avoided if a bigger beam, W8x31, rather than a W8x10 beam was used or if stiffener plates had been welded to the flanges and web at the loading locations"; and [2] the lack of "gooser braces for all four shoring/skating towers" "was a violation of the manufacturer's instructions," and "[w]ithout the diagonal

gooser braces, the shoring/skating towers became more flexible and less stable, contributing to the collapse.”

### *MOSH Citation*

On November 21, 2013, MOSH issued to Whiting-Turner a Citation and Notification of Penalty, which contained two citations. “Citation 1,” the citation at issue on appeal, was deemed a serious violation, and it contained two “items” or violations.<sup>9</sup>

Item one alleged that Whiting-Turner “did not ensure that a 42,800 pound double tee pre-stressed concrete beam was cribbed, blocked or otherwise secured after it had been raised by a hydraulic jack,” in violation of 29 C.F.R. 1926.305(d)(1)(i), which required that “[a]fter the load had been raised, it shall be cribbed, blocked, or otherwise secured at once.” MOSH assessed a penalty of \$5,325. Item two alleged that Whiting-Turner “did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or a serious physical harm to employees,” in violation of LE § 5-104(a).<sup>10</sup> Item two was predicated on the following three factors: (1) “the extension frames were raised 2 or more feet above the base frame” and “diagonal gooser braces were not installed as per the instructions of the manufacturer of the shoring towers”; (2) the “placement of an 8 inch high spacer beam between the double tee stem

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<sup>9</sup> There were two citations, but Citation 2, alleging that Whiting-Turner failed to “provide OSHA 300 logs within [four] business hours after they were requested,” subsequently was withdrawn by MOSH.

<sup>10</sup> The citation set forth that the employees “were exposed to [and] struck by [] crushing hazards during the process of jacking, shoring and skating of a pre-stressed concrete double tee.”

and the upper W8 by 10 beam weakened the rigidity of the upper support system on top of the shoring/skating towers in the north-south direction”; and (3) “[t]he single re-jacking at the SE jacking tower,” which initiated the partial collapse. The citation noted that the “feasible and acceptable abatement methods to correct this hazard would [have been] to follow the manufacturer’s requirements,” to “follow recognized and generally accepted good engineering practices by using a bigger beam,” “or to weld stiffener plates to the flanges and web at the load locations.” MOSH assessed a penalty of \$5,800 for this violation.

A worksheet prepared by MOSH, dated November 21, 2013, the same day as the citation was issued, described the work hazard as:

Possible collapse and failure of shoring towers due to lack of gooser braces to support the 2 foot extensions that were on each tower, and only using spacer beams between the double tee and the beams, along with only jacking up one corner of the double tee while leaving the other three at their same elevations causing the double tee weighing 42,800 pounds to fall striking the employees.

The severity of the hazard was “[p]ossible death or serious physical harm to the employees from the collapse of the 42,800 pound[] double tee.”

With respect to Whiting-Turner’s actual or constructive knowledge of the hazard, the worksheet discussed the lack of gooser braces and the spacer beam. Regarding the gooser braces, it stated:

Safway delivered shoring tower materials to the site at The Whiting Turner Contracting Company’s request. The materials included gooser braces. Whiting-Turner’s drawings dated 05-05-13 did not call for gooser braces to be installed. Whiting-Turner did not follow the shoring tower

manufacturer's instructions for the erection of and proper bracing of the shoring towers.

With respect to the spacer beams, the worksheet stated: "Bigger beams were necessary on the shoring towers. One spacer beam measuring W8x10 had already buckled and stiffeners were used on the W8x31 beams of the jacking towers, but were not used on the shoring towers."

On December 6, 2013, Whiting-Turner filed a notice of its intent to contest the citation and penalties. On August 27, 2014, MOSH referred the issue to the Office of Administrative Hearings.

### *Administrative Hearing*

An Administrative Law Judge ("ALJ") conducted a hearing over a three-day period in December 2014. The ALJ admitted 33 exhibits from MOSH and six photographic exhibits from Whiting-Turner.<sup>11</sup>

Mr. Latham, who as indicated was a compliance specialist with MOSH, testified that he prepared an inspection report related to the accident on May 23, 2013. He arrived on site at the accident scene at approximately 4:10 p.m. At that point, the fire department already "had constructed a lot of their shoring for the structure" to conduct their rescue operation. Mr. Latham walked the "periphery of the rescue" and construction site. One picture depicting shoring towers showed that the tower was comprised of three sections –

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<sup>11</sup> Included within the admitted exhibits were the reports from KCE Structural Engineers and OSHA. The ALJ stated, however, that the opinions expressed in the report were "not qualified expert opinions."

two of those sections were four feet in height and the last section at the top was two feet in height. The top section “had no braces at all.” Mr. Latham testified that gooser braces were “horizontal members [used] to support that section,” and they kept “the frame . . . plumb from twisting.”

The materials used to construct the shoring and jacking towers were leased from Safway Scaffolding.<sup>12</sup> As a part of his investigation, Mr. Latham received documentation regarding the materials Whiting-Turner received, which listed gooser braces as items delivered to the jobsite.

With respect to the citation, Mr. Latham noted his familiarity with the standard for “Citation 1, Item 1,” and he stated that cribbing or blocking could occur with multiple things, i.e., wood or steel, to help support a load and keep it from failing. He explained that Whiting-Turner violated the standard when it “decided to jack the [southeast] end” of the double tee to replace the damaged piece of steel, and it failed to crib or block the load, i.e., the double tee. This determination was made based on his interview with Mr. Bruns, who stated that, as they jacked up the southeast corner, Mr. Bruns instructed his crew to stop, and he shook the tower to “see if there was still any load on the shoring tower,” and because the double tee was not cribbed, nine employees were all exposed if the double tee fell.

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<sup>12</sup> Mr. Latham said that the materials to construct the shoring towers were leased from Safway Scaffolding, but the invoice for the materials was from Safway Services, LLC.

With regard to “Citation 1, Item 2,” the General Duty Clause violation, Mr. Latham noted that the purpose of the General Duty Clause “is to issue a citation to an employer where there is not a specific MOSH standard . . . for the apparent violation that would have been observed or that occurred during the investigation.” He testified that there were not “any federal standards that MOSH adopted, . . . [or] that would cover this process of shoring and jacking and skating a prestressed concrete double tee.” Mr. Latham explained that the violation was predicated on Whiting-Turner’s “placement of the [W8x10] spacer beams underneath of the prestressed concrete, the lack of gooser braces, and the lack of . . . stiffener plates welded to the [W8x10s] that were used.” The recognized hazard was the “weight of the double-tee [and] the collapse of the structure down onto the employees.”<sup>13</sup> Noting that nine employees were exposed to the hazard, he considered the violation to be serious and proposed a penalty accordingly. In addition to the KCE report, photographs, interviews, and information obtained, Dr. Jin’s report also was “referenced and used” in MOSH’s determination to issue the citation. On cross-examination, Mr. Latham stated that the decision to replace part of the cribbing was not considered to be a part of the violation.

Mr. Latham testified that, with respect to Item 1 of Citation 1, this violation concerned the process of raising the southeast corner of the double tee. The basis for this

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<sup>13</sup> Counsel later clarified that, with regard to the General Duty Clause violation, it was “MOSH’s position that the recognized hazard was the possible collapse and failure of the towers leading to the [] double-tee falling.”

violation was that there should have been new cribbing installed on the shoring tower prior to removing the beam.

With regard to Item 2 of Citation 1, violation of the General Duty Clause, Mr. Latham stated that the hazard was the collapse of the 42,800 pound structure, and the hazardous condition giving rise to the violation was “[t]he lack of gooser braces, the lack of stiffeners and the size of the beams that were being used on the shoring towers.” The lack of gooser braces was a recognized hazard, based on the manufacturer’s recommendation.<sup>14</sup> He could not say whether the lack of gooser braces, “in and of themselves would have led to . . . a failure,” noting that he was not an engineer.

Mr. Bruns, an ironworker foreman employed by Whiting-Turner for approximately 16 years, testified regarding the operation to raise and skate the double tee. Prior to this project, he had never performed the process engineered by Whiting-Turner to raise the double tee, and he was not aware if Whiting-Turner had previously conducted this process. Mr. Bruns did not review the literature provided by Safway prior to erecting the shoring system, but an engineer would be responsible for the decision whether to use gooser braces. He could not recall if any engineer from Whiting-Turner instructed him to use gooser braces. Mr. Bruns explained that the shoring system was set-up a week prior to the double

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<sup>14</sup> Mr. Latham subsequently stated that he did not know the answer to the question whether “every time anybody ever fails to follow a manufacturer’s recommendation that [it] constitutes a recognized hazard?” The ALJ stated that Mr. Latham’s role was limited to what the investigation found and what the agency did.

tee operation, and at the time, he thought Timothy Unrath, a project manager with Whiting-Turner, inspected the shoring system.

After lunch on May 23, Mr. Bruns noticed that one of the beams “on top of the towers, was slightly bent.” He knew that he had to remove it and put in a new one. He could not recall if he spoke with anyone at Whiting-Turner prior to his decision, but he instructed his workers how they would remedy the issue, and he decided which employees were to remove the bent piece.

Mr. Bruns stated that he heard a crack prior to the collapse of the double tee. When counsel for Whiting-Turner asked if he had any concerns about the process utilized by Whiting-Turner during the raising of the first double tee, Mr. Bruns said that he did not. With respect to the second double tee, Mr. Bruns confirmed that, during the process of raising the southeast corner to replace the cribbing, the other three shoring towers were supporting the double tee.

Dr. Jin was called as the State’s next witness. Counsel for Whiting-Turner objected to his testimony, as well as the State’s use of his report. Counsel proffered that Dr. Jin’s participation was illegal, asserting that he was not a competent witness under Maryland law, pursuant to Md. Code (2017 Supp.) § 14-101(j)(2) of the Business Occupations and Professions (BOP) Article. The ALJ explained that there was case law “that says that someone does not necessarily have to have the applicable license to be accepted as an expert for testimony purposes,” but she would determine whether Dr. Jin would be permitted to testify after *voir dire* examination.

Dr. Jin testified that he received his Bachelor of Science in civil engineering from the National Taiwan University, a Master of Science in civil engineering from University of Wisconsin–Milwaukee, and a Doctor of Philosophy in civil engineering from Northwestern University. He had been licensed in engineering in Illinois since 1979, but he was not licensed in Maryland. Dr. Jin explained that he was not required to have an engineering license as a condition of his employment with the Office of Engineering under the Directorate of Construction, which is within the Occupational Safety and Health Administration at the U.S. Department of Labor based in Washington, D.C. He testified that he belonged to several professional organizations, such as the American Society of Civil Engineers (ASCE), the American Concrete Institute, and the American Institute of Steel Construction. Dr. Jin further testified that he had been qualified to testify as an expert witness in engineering for federal OSHA cases.

MOSH moved for Dr. Jin to be accepted as an expert in civil engineering. Counsel for Whiting-Turner stated that he had no objection, and the ALJ accepted Dr. Jin as an expert. Upon further inquiry from the ALJ, Whiting-Turner’s counsel stated that he objected to Dr. Jin’s “report and the State’s attempt to use it,” as well as Dr. Jin’s “consultations with the State” arising from MOSH’s request for assistance relating to the May 23 accident because both were “improper under State law.” Counsel further argued that Dr. Jin should not be permitted to testify, stating that, pursuant to BOP § 14-101(j)(2), an individual may not practice engineering in Maryland “unless they are licensed by the Maryland State Board,” and the definition of “practice” was “very expansive” and included

consultation and investigation. Whiting-Turner's position was that, because Dr. Jin was only licensed in Illinois, and not in Maryland, Dr. Jin could not testify on the report or any work performed as it was improper "for him to have done [it] in the first place."

Counsel for MOSH argued that, pursuant to BOP § 14-301(b), Dr. Jin was exempt from the requirement to possess a Maryland engineering license to perform official duties. Specifically, counsel asserted that, because Dr. Jin's investigation and report were performed pursuant to his "official duties" with the federal government, i.e., assisting MOSH, he was exempt from the Maryland licensing requirement.

The ALJ stated: "[I]t does appear that [BOP §] 14-301 . . . does permit a person to do engineering without a license if that person is an employee of the federal government, which it appears that Dr. Jin is." She then reminded the parties that Dr. Jin already had been accepted as an expert for the hearing. Whiting-Turner disagreed, stating that the question was whether Dr. Jin could testify given that he had "not complied with requirements of the state to obtain a license within the state to be certified by the Board [nor] . . . stamp[ed] his [report] with the stamp that is required by state law."<sup>15</sup> The ALJ ruled that Dr. Jin could testify as an expert witness.

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<sup>15</sup> Maryland Code (2017 Supp.) § 14-4A-02(a) of the Business Occupations and Professions Article requires that, prior to the time when a "professional engineer issues to a client or submits to a public authority any plan, specification, or report, the professional engineer who prepared or approved the document shall endorse on the document the professional engineer's: (1) original signature and date of signature; and (2) seal or facsimile of the seal." Subsection b prohibits a public authority from accepting "any engineering plan, specification, or report unless the document is endorsed as required" under subsection a.

Dr. Jin then testified that MOSH had asked OSHA for assistance in the investigation of the collapse of the concrete double tee in May 2013. He relayed his observations when he arrived at the scene of the collapse. He attempted to explain the significance of his findings regarding the upper spacer beam, but the ALJ stated that she was having difficulty understanding Dr. Jin's testimony due to the "combination of technical terms and his accent." She suggested the use of an interpreter, but because all of Dr. Jin's opinions and findings were in his report, MOSH moved to admit into evidence Dr. Jin's October 2013 investigative report. Whiting-Turner's counsel objected, but the court overruled the objection and admitted the report, in which, as discussed, *supra*, Dr. Jin concluded that the partial collapse was the result of three factors, including the lack of gooser braces and the use of an inadequately sized spacer beam.

Dr. Jin testified that he agreed with the findings in the KCE report, including agreeing with the manufacturer, Safway, "on the requirement of the goose[r] brace[s], . . . which [Whiting-Turner] did not install." Dr. Jin testified that, in his opinion, to a reasonable degree of certainty, based on his training and experience as a civil engineer, the cause of the partial collapse was, as stated in his report, a "combination of three factors."

The first factor was the "over size" of the spacer beam. Dr. Jin stated that, in his career, he had never seen this method of a setting up beams and shoring, with "a bigger beam on top of a smaller beam," as this increases the possibility of the upper flange of the upper beam buckling. The second factor was that Whiting-Turner "did not install the

required or the manufacturer recommended goose[r] [braces].”<sup>16</sup> The third factor was the method of shoring and how the weight was “distributed” diagonally when the double tee was jacked to replace the cribbing.

On cross-examination, counsel for Whiting-Turner addressed KCE’s findings that the eight towers had adequate strength to support the double tee and asked Dr. Jin if he evaluated the weight of the double tee to determine if it was evenly dispersed. Dr. Jin responded that he “assume[d] the concrete [wa]s uniform,” and rigid.

Dr. Jin agreed that the weight of the double tee alone would not have caused the spacer to deform, but there had to be another force. Part of that force was from the lack of gooser braces.

Although Dr. Jin agreed with counsel’s question that all three factors that were listed in his report “needed to be present for the accident to have occur[red],” Dr. Jin stated that “[a]ll three of them [were] contributing [factors],” and he believed “the third [factor] . . . alone may [have] cause[d] the accident.” Dr. Jin testified that neither the spacer beam nor the failure to use gooser braces was the sole cause of the accident.

Two employees of Whiting-Turner testified on its behalf. Mr. Unrath, the project manager who prepared the engineering plans and oversaw the operations, testified that, at

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<sup>16</sup> Dr. Jin testified that his knowledge that Safway required the use of gooser braces when there was an extension of the shoring of two feet or more was based on the Safway brochure, and the only basis for his testimony regarding the gooser braces was the Safway brochure. He further testified that a manufacturer safely designs the system and “the user should follow [the] requirements.”

the time of the accident, the shoring towers “were nearly at two feet,” but he could not recall “[w]hether they were just above or just below” two feet. He was aware that gooser bracers were not used in the shoring towers, but the absence of the braces was not of any concern to him. He believed that the lack of gooser braces did not present a hazard. Prior to the re-jacking, he discussed removing the bent beam with Mr. Bruns, and Mr. Bruns directed his crew on the southeast shoring tower to initiate the process. Mr. Unrath agreed that spacers were used on the shoring system, and he stated that the “proper use of spacers on the shoring system would not have an impact on the overall strength of the system.”

Mr. Wolfe, a project manager within Whiting-Turner’s Steel Division, testified that Whiting-Turner previously had used the Safway Adjust-A-Shore Shoring system on various projects. He estimated that they used Safway’s shoring towers on “five to 10 projects” a year.

### ***ALJ Proposed Decision***

On March 23, 2015, the ALJ issued a 24-page proposed decision, recommending that the violations against Whiting-Turner be upheld. The ALJ made findings of facts, in pertinent part, as follows:

5. [Whiting-Turner] used Safway Adjust-A-Shore<sup>TM</sup> heavy duty shoring for the shoring towers on this project; Safway gooser braces were delivered to the Employer along with shoring towers, to provide lateral support for the towers.

6. The use of gooser braces was explained in Safway materials as follows:

The extension frames are individually braced. The positioning of the diagonal gooser bracers start when the extension frame is put at a 2’

or more extension. . . . As the extension frames are extended, the diagonal gooser braces are connected to various horizontals of the base frame and the extension frame.

(MOSH Ex. #23, p. 3).

7. [Whiting-Turner] did not install the gooser braces on the shoring towers.

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14. At about 1:30 p.m., Mr. Brunns noticed that the top I-beam on the southeast shoring tower, carrying the weight of the Double Tee on that corner, was twisted and deformed at the bottom flange.

15. After consulting with Timothy Unrath, the project manager, Mr. Brunns ordered the employee at the southeast jacking tower to give a couple of pumps on that jack only, to remove the damaged beam. There was no order to jack the other three jacking towers in unison with the southeast jacking tower, and there was no order to place a beam or other support on any of the towers before the damaged beam was reached for removal.

16. The employee jacked up the southeast jacking tower and Mr. Brunns shook the southeast shoring tower, and determined that it was loose and carried no load.

17. No cribbing or blocking was installed, and no other action was taken to secure the Double Tee immediately after the jacking.

18. Mr. Brunns then ordered two employees to go up and remove the damaged beam. While they were going up, the Double Tee collapsed, injuring one worker and killing the other.

19. After the accident, the Employer engaged Allyn Kilsheimer of KCE Structural Engineers, primarily to design the “make-safe” (that is, work to stabilize the garage structure at the accident scene).

The ALJ addressed first Citation 1, Item 1, alleging a violation of 29 C.F.R. § 1926.305(d)(1)(i), which states that, “[a]fter the load has been raised, it shall be cribbed, blocked, or otherwise secured at once.” The ALJ noted that the charge was that Whiting-

Turner “failed to use cribbing, blocking, or other methods to secure the Double Tee immediately after jacking was done at the southeast corner.” The ALJ found that Whiting-Turner violated this occupational health and safety law by “failing to crib, block, or otherwise secure a load at once after the load was raised,” and she recommended that the penalty of \$5,325 be affirmed.

With respect to Citation 1, Item 2, the General Duty Clause, the ALJ first rejected the argument that MOSH had the burden to show that no specific standard applied. Because Whiting-Turner “did not identify any specific standard that applied,” the ALJ found that MOSH properly invoked the General Duty Clause. The ALJ then stated that, based on her difficulty understanding Dr. Jin “[i]n light of Dr. Jin’s inadequacies in spoken English,” she did not rely on his testimony but only considered Dr. Jin’s written report, which was “well-written” and “a reliable representation of his investigation and opinions as an expert in civil engineering.”

The ALJ then summarized the evidence relating to the General Duty Clause violation and the three factors supporting the charge provided by MOSH. With respect to the gooser braces, the ALJ stated:

MOSH charged [Whiting-Turner] with violating the General Duty Clause by failing to install gooser braces. . . .

[Whiting-Turner] used Safway Adjust-A-Shore™ heavy duty shoring for the shoring towers in this project.<sup>17</sup> Safway gooser braces were delivered to [Whiting-Turner] along with the shoring towers. . . .

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<sup>17</sup> The use of the gooser braces was explained in the Safway manual as follows:

[Whiting-Turner] argued that gooser braces were not needed, because at the time of the accident, the extension frames of the shoring tower were not raised two feet or more above the base frames. The evidence, however, is to the contrary.

Dr. Jin reviewed photographs of the towers taken the day after the accident and noted that the extension frames were raised two feet above the top of the base frame at all four shoring towers. (MOSH Ex. #30, pp.12-13, text and Figure 15). This observation was corroborated by Timothy Unrath, Project Manager for [Whiting-Turner]. Mr. Unrath was asked if he knew whether, at the time of the accident, the extensions on the Safway shoring system were above or below two feet. He answered, "They were nearly at two feet. Whether they were just above or below, I don't know."

Mr. Kilsheimer of KCE Structural Engineers was called in by [Whiting-Turner] after the accident, primarily to design the "make-safe" work, that is, work to stabilize the garage structure on the accident scene. Although I did not accept Mr. Kilsheimer as an expert, I credited his factual observation. He wrote that on the day of the accident, the "safety" (shoring) towers used a two foot extension and no gooser braces were installed.

I conclude that the shoring towers were extended two feet or more above the base frames.

The ALJ then addressed whether, pursuant to the General Duty Clause, the absence of gooser braces failed to keep the workplace free of hazard to which the employees were exposed. She stated:

Dr. Jin provided in his expert opinion that the failure to use gooser braces created a hazardous condition, to which employees, working under the Double Tee, were exposed. Dr. Jin's report explained that the purpose of the braces is to ensure the rigidity of the shoring tower and the stability of its upper support system. The effect of the lack of diagonal gooser braces is to decrease the rigidity and impair the stability of the shoring tower in the lateral

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The extension frames are individually braced. The positioning of the diagonal gooser braces start when the extension frame is put at a 2' or more extension. . . . As the extension frames are extended, the diagonal gooser braces are connected to various horizontals of the base frame and the extension frame.

direction. Dr. Jin concluded that the accident was partly caused by the lack of diagonal gooser braces. I found Dr. Jin's opinions on this issue to be well explained and reasonably based on the facts in evidence. These opinions were not contradicted by any other expert opinions in evidence. [(citations and footnote omitted).]

[Whiting-Turner] argued that Dr. Jin's opinions were unreliable, because he did not perform calculations about the forces or flex created by the lack of gooser braces. There was no evidence to show that such calculations were required. [Whiting-Turner] also cited testimony by Dr. Jin that the flexural stress of the shoring tower was within the strength limit even without the use of gooser braces, but the transcript pages cited by [Whiting-Turner] do not contain such a statement.

With respect to whether the absence of gooser braces was a recognized hazard, the ALJ noted that "it was [Whiting-Turner's] decision not to use gooser braces. [Whiting-Turner] was on notice from the Safway material that gooser braces should have been used." The ALJ further found that the hazard was likely to cause death or serious physical harm, based on Dr. Jin's "uncontradicted opinion" that "the failure to use gooser braces" was "a contributing factor in the collapse of the Double Tee." And with respect to the requirement that there be a feasible and useful method to correct the hazard, the ALJ stated that Whiting-Turner did not explain why it opted not to engage in the "feasible and useful method to correct the hazard," i.e., installing the gooser braces. Thus, the ALJ concluded that MOSH "proved that the failure to install gooser braces violated the General Duty Clause."

Regarding the use of the spacer beam on the shoring towers, the ALJ stated: "MOSH proved that the size of the spacer beams constituted a hazard, to which the employees were exposed." In support, the ALJ summarized the evidence, as follows:

According to Dr. Jin, using W8x10 spacer beams, and not bigger beams such as W8x31 spacer beams, significantly decreased the rigidity of

the shoring tower. (MOSH Ex. #30, p. 16). Dr. Jin wrote that the W8x10 beam was undersized to support the actual load in the manner it was configured. (MOSH Ex. #30, p. 14). Dr. Jin concluded that the partial collapse of the Double Tee could have been avoided if a bigger beam had been used, or if stiffener plates had been welded to the flanges and web at the loading locations. (MOSH Ex. #30, p. 16).

[Whiting-Turner] challenged Dr. Jin's opinion based on the fact that he did not quantify the effect of the size of the beam. There was no need for such calculations; the sections of Dr. Jin's report were supported by engineering expertise and contained reasonable explanations for his conclusions, which [Whiting-Turner] did not refute. [Whiting-Turner] also argued that Dr. Jin's conclusions were undermined by his admission that the weight of the Double Tee alone would not have caused the spacers to deform. This statement does not contradict his conclusion that the size of the spacer beam was inadequate.

The ALJ then found that the spacer beam was a hazard that "was recognized, through actual or constructive knowledge," noting that it was Whiting-Turner's "decision to choose the W8x10 beams that were used on the shoring towers." The ALJ accepted Dr. Jin's opinion that the use of the spacer beam was a contributing cause of the collapse,<sup>18</sup> and she concluded that there was a "feasible and useful method to correct the hazard," noting that Whiting-Turner "could have used larger spacer beams or stiffener plates," and it "gave no reason why" it did not take those measures.

With respect to the third factor, the re-jacking of only the southeast jacking tower, the ALJ noted that it was undisputed that,

after Mr. Bruns noticed the deformed beam on the southeast shoring tower, he . . . ordered the employee at the southeast jacking tower to give a couple of pumps on that jack, to remove the damaged beam. Mr. Bruns did not order

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<sup>18</sup> The ALJ referred to gooser braces in this part of the discussion, but in context, she clearly was discussing spacer beams.

that the other three jacking towers be jacked in unison with the southeast jacking tower.

The ALJ then referenced Dr. Jin's report, which stated "that the single re-jacking caused the Double Tee to tilt and to shift its weight to only two towers, which collapsed because they were not designed to carry the entire weight." Finding "Dr. Jin's written opinion on the re-jacking issue to be well explained," the ALJ found that MOSH "established the re-jacking operation was a hazard, to which the employees were exposed." To correct the hazard, "[Whiting-Turner] could have jacked up the Double Tee to remove the deformed beam by simultaneously raising all four corners of the Double Tee," but Whiting-Turner "gave no reason why this method was not used or otherwise feasible." Accordingly, the ALJ found that MOSH established that Whiting-Turner's "decision to re-jack only the southeast corner of the Double Tee violated the General Duty Clause." The ALJ concluded that Whiting-Turner failed to provide "a place of employment free from recognized hazards that were causing or likely to cause death or serious physical harm to employees," and she recommended that the proposed penalty of \$5,800 be affirmed.

#### ***Commissioner Review***

After Whiting-Turner filed for a review of the ALJ's proposed decision, the Commissioner of Labor and Industry held a hearing on November 18, 2015. On April 14,

2016, it issued its Final Decision and Order, vacating Citation 1, Item 1, and affirming Citation 1, Item 2, addressing the General Duty Clause.<sup>19</sup>

The Commissioner first addressed Whiting-Turner's arguments that the ALJ "improperly relied upon the testimony and report of Dr. Jin." The Commissioner concluded that, based on the evidence, the ALJ "correctly held that Dr. Jin was acting as an employee of federal OSHA when he prepared the report and testified," and therefore, he was exempt from the licensure requirement under BOP § 14-403(b)(1).<sup>20</sup>

The Commissioner then addressed the three bases cited by MOSH in support of the General Duty Clause violation. With regard to the third basis, the re-jacking of only the southeast corner to replace the bent steel, the Commissioner found, for the reasons it previously stated for Citation 1, Item 1, that MOSH failed to show that the actions in this regard constituted a recognized hazard. With respect to the first and second bases, the failure to use gooser braces and the placement of the spacer beam between the double tee

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<sup>19</sup> In vacating Item 1 of Citation 1, the alleged failure to crib, block or otherwise secure a load, the Commissioner found that "Whiting-Turner's actions in attempting to replace the bent beam upon discovering it[,] [were] reasonable under the circumstances." The Commissioner noted that KCE's report stated that the determination to replace the bent piece of steel was the "correct thing to do."

<sup>20</sup> The Commissioner also rejected Whiting-Turner's "novel argument" that, because Dr. Jin's report was not "stamped" pursuant to BOP § 14-4A-02, "it should not have been 'accepted.'" The Commissioner found that, the "stamp" or "seal" requirement "applies to engineers who are required to be licensed," and because "Dr. Jin is exempt from these requirements, this provision does not apply."

and the upper W8x10 beam, the Commissioner found that MOSH had met its burden of proof.

With respect to the gooser braces, the Commissioner stated:

Safway provided gooser braces and they were delivered to the job site. (Tr. 301).

The hazard associated with not following Safway's recommendation to utilize gooser braces when the extension frames were added is that as the shoring tower is extended higher, it becomes more flexible and less stable, creating the potential for the load to shift or fall. (Tr. 623) The hazard is one recognized by the construction industry, specifically the manufacturer. (MOSH Ex. 23 p. 3) The Whiting Turner employees were familiar with Safway's system and knew that Safway had provided gooser braces along with the extension frames.

The KCE report found that "the 'jacking' tower scaffold legs were extended beyond manufacturer recommendations and extension sections were not braced per manufacturer requirements, which each reduced their load carrying capacity." (MOSH Ex. 25 p. 2) Dr. Jin's report also found that "[w]hen the extension frame was installed, with its post inside the post of the base frame, and the extension frame was raised 2' or more above the base frame (Figure 14), the diagonal gooser braces must be installed as per the instructions of the manufacturer of the shoring tower." . . .

. . . The Safway manual explicitly states [t]he gooser braces should be used at that point. Thus, Whiting Turner knew or should have known that failure to use the gooser braces was a hazard that was likely to cause death or serious injury to an employee. Accordingly, MOSH has met its burden and established that Whiting Turner's failure to use gooser braces violated LE § 5-104(a).

With respect to the second condition that created a recognizable hazard, the use of the spacer beam, the Commissioner stated:

Dr. Jin explained why generally accepted engineering practices necessitated the use of a larger beam. (MOSH Ex. 30 p. 14). The spacer beam was not sufficiently sized to support the actual load in the manner in which it was configured on the shoring tower. (MOSH Ex. 30 p. 14). Using the

spacers weakened the rigidity of the upper support system on top of the shoring towers thereby creating a hazardous condition.

The Commissioner stated that, although “Whiting Turner recognized the need to use sound engineering practices in jacking up and sliding the 42,800 pound double-tees,” it “did not offer any evidence to contradict Dr. Jin’s testimony that sound engineering principles necessitated use of a larger beam.” Moreover, based on the pictures provided, it was evident that “W8x10 spacer beams were not used on May 21 when the first double-tee was successfully raised and skated.” Based on its findings, the Commissioner noted that MOSH had “met its burden and established that [the] use of the 8 inch high spacer beam violated LE § 5-104(a).” Accordingly, the Commissioner upheld Citation 1, Item 2, the violation of the General Duty Clause, and the Commissioner affirmed the proposed penalty of \$5,800.

On May 10, 2016, Whiting-Turner petitioned for judicial review in the Circuit Court for Baltimore County. On February 7, 2017, the circuit court issued its decision affirming the Commissioner’s decision. The court found that, based on the record before it, the Commissioner’s decision was supported by substantial evidence and was legally correct.

### **STANDARD OF REVIEW**

This Court has set forth the standards that guide us in reviewing an administrative agency’s decision:

When reviewing the decision of an administrative agency, “this Court reviews the agency’s decision, not the circuit court’s decision.” *Long Green Valley Ass’n v. Prigel Family Creamery*, 206 Md. App. 264 (2012) (citation omitted). In so doing, “we are limited to determining if there is substantial evidence in the record as a whole to support the agency’s finding and

conclusions, and to determine if the administrative decision is premised upon an erroneous conclusion of law.” *Balt. Police Dep’t v. Ellsworth*, 211 Md. App. 198, 207 (citation omitted), [*aff’d*, 438 Md. 69 (2014)]. Stated differently, “[o]ur primary goal is to determine whether the agency’s decision is in accordance with the law or whether it is arbitrary, illegal, and capricious.” *Long Green Valley*, 206 Md. App. at 274 (citation omitted). “In applying the substantial evidence test, we must decide whether a reasoning mind reasonably could have reached the factual conclusion the agency reached.” *Rideout v. Dep’t of Pub. Safety & Corr. Servs.*, 149 Md. App. 649, 656 (2003) (citation omitted).

*Matthews v. Housing Auth.*, 216 Md. App. 572, 582, *cert. denied*, 439 Md. 330 (2014).

## DISCUSSION

### I.

#### General Duty Clause Violation

Whiting-Turner contends that the Commissioner erred in finding that MOSH met its burden to show that it violated the General Duty Clause. Specifically, it argues that MOSH failed to prove: (1) a condition that constituted a hazard that was likely to cause death or serious physical harm; or (2) that any such hazard was a recognized hazard. Whiting-Turner further argues that the Commissioner improperly altered the basis of the citation, asserting that MOSH alleged that three factors caused the accident, but the Commissioner found that the failure to use gooser braces and the use of the oversized spacer beam each constituted a separate hazard sufficient to establish a General Duty Clause violation.

The Commissioner contends that it “correctly concluded that Whiting-Turner violated the General Duty Clause.” It asserts that, although the violation was “based on three separate and distinct conditions that MOSH deemed hazardous,” only one hazardous

condition was needed, and MOSH “met its burden with regard to two of those three conditions.”

With respect to the gooser braces, the Commissioner asserts that “[t]he uncontroverted evidence established that the extension frames were raised two feet or more above the base frame and that gooser braces were not installed,” contrary to the assembly manual for the system. It contends that the hazard associated with not installing the gooser braces, making the shoring tower less stable and reducing its load carrying capacity, was “one recognized by the construction industry, specifically the manufacturer, KCE and Dr. Jin,” and therefore, “Whiting-Turner knew or should have known that the failure to use the gooser braces was a hazard that was likely to cause death or serious injury to an employee.”

With respect to the spacer beam, the Commissioner asserts that the spacer beam between the double tee and the upper W8x10 beam “was not sufficiently sized to support the actual load” and created a hazardous condition. It further asserts that Whiting-Turner failed to “contradict Dr. Jin’s testimony that sound engineering principles necessitated the use of a larger beam.”

Before addressing the specific contentions, we address generally the statute at issue, the General Duty Clause. It provides: “Each employer shall provide each employee of the employer with employment and a place of employment that are: (1) safe and healthful; and (2) free from each recognized hazard that is causing or likely to cause death or serious physical harm to the employee.” LE § 5-104(a). Because Maryland’s General Duty Clause is substantially similar to the federal Occupational Safety and Health Act (OSHA), we

“look to federal cases for guidance” in its interpretation. *Bethlehem Steel Corp. v. Comm’r of Labor & Industry*, 339 Md. 323, 328 (1995); *Md. Comm’r of Labor & Indus. v. Cole Roofing Co.*, 368 Md. 459, 470 (2002).

To establish a violation of the General Duty Clause, MOSH must prove: (1) a condition or activity in the workplace presented a hazard to employees; (2) the hazard was “recognized”; (3) the hazard was likely to cause death or serious physical harm; and (4) “feasible means to eliminate or materially reduce the hazard existed.” *SeaWorld of Florida, LLC v. Perez*, 748 F.3d 1202, 1207 (D.C. Cir. 2014) (quoting *Fabi Constr. Co. v. Sec’y of Labor*, 508 F.3d 1077, 1081 (D.C. Cir. 2007)). *Accord Nat’l Realty & Constr. Co. v. Occupational Safety & Health Review Comm’n*, 489 F.2d 1257, 1265 (D.C. Cir. 1973). If MOSH fails to produce evidence showing each element of a violation, the record does not contain substantial evidence to support a finding in MOSH’s favor. *SeaWorld*, 748 F.3d at 1208. With that background in mind, we address Whiting-Turner’s claims.

#### A.

#### **Alteration of Citation**

We address first Whiting-Turner’s claim that the Commissioner altered the basis of the citation. The citation did list three conditions that led to the collapse: (1) “the extension frames were raised 2 or more feet above the base frame” and “diagonal gooser braces were not installed as per the instructions of the manufacturer of the shoring towers”; (2) the “placement of an 8 inch high spacer beam between the double tee stem and the upper W8 by 10 beam weakened the rigidity of the upper support system on top of the shoring/skating

towers”; and (3) “[t]he single re-jacking at the SE jacking tower.” Although the evidence was that those conditions together caused the accident, we agree with the Commissioner’s argument that each condition could be assessed individually as a General Duty Clause violation. Accordingly, a finding that two conditions constituted a recognized hazard, if supported by the evidence, was sufficient to constitute a violation of the General Duty Clause and did not constitute an improper alteration of the citation. We thus turn to the findings regarding those two conditions, the lack of gooser braces and the use of spacer beams.

## **B.**

### **Gooser Braces**

With respect to the gooser braces, the Commissioner found that the expansion frames were raised more than two feet above the base frame and gooser braces were not utilized. The Commissioner then stated:

The hazard associated with not following Safway’s recommendation to utilize gooser braces when the extension frames were added is that as the shoring tower is extended higher, it becomes more flexible and less stable, creating the potential for the load to shift or fall. (Tr. 623) The hazard is one recognized by the construction industry, specifically the manufacturer. (MOSH Ex. 23 p. 3) The Whiting Turner employees were familiar with Safway’s system and knew that Safway had provided gooser braces along with the extension frames.

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. . . The Safway manual explicitly states [t]he gooser braces should be used at that point. Thus, Whiting Turner knew or should have known that failure to use the gooser braces was a hazard that was likely to cause death or serious injury to an employee. Accordingly, MOSH has met its burden

and established that Whiting Turner's failure to use gooser braces violated LE § 5-104(a).

Based on our review of the record, including Dr. Jin's report, we conclude that there was substantial evidence to support the Commissioner's finding that the shoring tower extension frames were positioned two feet or more above the base frame, and Whiting-Turner failed to use the gooser braces, which made the shoring tower less stable. Assuming, *arguendo*, that this condition constituted a hazard likely to cause death or serious injury to an employee, we focus on whether the failure to use the gooser braces was a recognized hazard.

The Commissioner contends that the hazard associated with failing to use gooser braces was "recognized by the construction industry, specifically the manufacturer, KCE and Dr. Jin." It asserts that the assembly instructions in the manual for the shoring system explicitly stated that the gooser braces should be used, and therefore, Whiting-Turner "knew or should have known that the failure to use the gooser braces was a hazard that was likely to cause death or serious injury to an employee" if the extension frames were raised two feet or more above the base frame.

Whiting-Turner contends that MOSH failed to prove that the failure to use gooser braces was a recognized hazard. It argues that, "[a]bsent explicit safety warnings, an instruction in a manufacturer's manual is not evidence of a recognized hazard."

"Establishing that a hazard was recognized requires proof that the employer had actual knowledge that the condition was hazardous or proof that the condition is generally known to be hazardous in the industry." *Kelly Springfield Tire Co. v. Donovan*, 729 F.2d

317, 321 (5th Cir. 1984). *Accord St. Joe Minerals Corp. v. Occupational Safety & Health Review Comm'n*, 647 F.2d 840, 845 (8th Cir. 1981) (“A hazard is deemed ‘recognized’ when the potential danger of a condition or activity is either actually known to the particular employer or generally known in the industry.”) (quoting *Usery v. Marquette Cement Mfg. Co.*, 568 F.2d 902, 910 (2d Cir. 1977)). Whether a work condition constitutes a recognized hazard is a question of fact. *SeaWorld*, 748 F.3d at 1208. Thus, we look to the record to determine whether there was substantial evidence to support the Commissioner’s finding that the lack of gooser braces was a recognized hazard.

The sole evidence that the lack of gooser braces was a recognized hazard was a statement in Safway’s brochure explaining its adjustable shoring system. The statement was made in the context of an explanation of the extension frames “to reach the desired shoring elevations.” It stated:

The extension frames are individually braced. The positioning of the diagonal gooser bracers start when the extension frame is put at a 2' or more extension []. As the extension frames are extended, the diagonal gooser braces are connected to various horizontals of the base frame and the extension frame.

Nowhere in this statement, however, is there any suggestion that the gooser frames were a safety requirement or that the failure to use the gooser braces could cause injury. Rather, the statement is merely an explanation of how to set up the shoring system.

The Occupational Safety and Health Review Commission (the “Commission”) addressed an argument similar to the one made here in *K.E.R. Enter., Inc.*, 23 BNA OSHC 2241 (No. 08-1225, 2015). In that case, three workers were injured as a

result of a pipe explosion. *Id.* at \*1. The Secretary of Labor argued that K.E.R. Enterprises Inc., d/b/a Armadillo Underground exposed its employees to a recognized hazard by failing to follow the manufacturer's instructions regarding the procedure to follow when there was a leak following installation of a waterline pipe. *Id.* at \*2. The Commission stated: "Manufacturers' instructions and voluntary industry standards that *contain explicit safety warnings* regarding compliance may be probative evidence in establishing a general duty clause violation." *Id.* at \*3 (emphasis added). In that case, however, where the installation instructions did not "contain a safety warning or suggest a link between noncompliance and a safety hazard," the Commission found that the installation instructions were insufficient to show a "recognized hazard." *Id.* at \*3-4.

Similarly, here, the Safway brochure did not have a safety warning or indicate that the failure to use gooser braces would constitute a hazard or would likely result in bodily injury or death. Accordingly, the Safway brochure, the sole basis for showing that Whiting-Turner or the industry knew of a recognized hazard resulting from the failure to use gooser braces, was insufficient to support the Commissioner's finding that the lack of gooser braces constituted a recognized hazard. *See United Steel Workers of Am. AFL-CIO, Local 2610 v. Bethlehem Steel Corp.*, 298 Md. 665, 679 (1984) ("[I]n judicial review of agency action the court may not uphold the agency order unless it is sustainable on the agency's findings and for reasons stated by the agency."). Accordingly, we reverse the Commissioner's finding of a violation of the General Duty Clause based on a lack of gooser braces.

## C.

### Spacer Beams

In finding a violation of the General Duty Clause based on the spacer beams, the Commissioner stated:

Dr. Jin explained why generally accepted engineering practices necessitated the use of a larger beam. (MOSH Ex. 30 p. 14). The spacer beam was not sufficiently sized to support the actual load in the manner in which it was configured on the shoring tower. (MOSH Ex. 30 p. 14). Using the spacers weakened the rigidity of the upper support system on top of the shoring towers thereby creating a hazardous condition.

Moreover, the Commissioner stated that, although “Whiting Turner recognized the need to use sound engineering practices in jacking up and sliding the 42,800 pound double-tees,” it “did not offer any evidence to contradict Dr. Jin’s testimony that sound engineering principles necessitated use of a larger beam.”

Whiting-Turner contends that there was no evidence to support the Commissioner’s finding that any diminution in rigidity constituted a serious hazard, asserting that “Dr. Jin testified that neither the weight of the double-tee nor the routine jacking operation would have caused the spacers to deform,” and he did not testify that the use of the spacer beam was likely to cause death or serious physical harm. Moreover, Whiting-Turner contends that there was no evidence that the use of the spacer beams constituted a recognized hazard.

The Commissioner disagrees. It cites to Dr. Jin’s testimony that the spacer beam was not sufficiently sized to support the actual load in the manner in which it was configured on the shoring tower. It asserts that Whiting-Turner did not offer any evidence

to dispute Dr. Jin's testimony that the method used to set up the beams was inconsistent with sound engineering principles.

We agree with Whiting-Turner that, even if there was evidence to support the finding that the use of the spacer beams was a hazard, there was not substantial evidence in the record to support a finding that it was a hazard recognized by the industry. There was no evidence that Whiting-Turner had actual knowledge that the use of the spacer beam presented a hazard, and MOSH did not make any such argument. Rather, the contention is that the hazard was one recognized by the industry, based on Dr. Jin's testimony that "sound engineering principles" necessitated the use of a different size beam.

A review of Dr. Jin's report and testimony, however, does not support a finding that the use of the spacer beam here was a recognized hazard. Although Dr. Jin testified that he had not previously seen a similar set up of beams and shoring, i.e., placing a larger beam over a smaller beam, he did not specifically testify, as asserted by the Commissioner, "that sound engineering principles necessitated the use of a larger beam." Nor did he testify that the industry recognized a hazard in the use of a spacer beam of the type used here. *Cf. St. Joe Minerals Corp.*, 647 F.2d at 845, n.8 (recognized hazard shown where expert testified that operation of freight elevator without safety locks was a recognized hazard in the elevator industry).

Indeed, Dr. Jin testified that "the W8x10 did not fail in the normal jacking operation, i.e., four hydraulic jacks to raise the double tee simultaneously," but it failed only when

“the SE jack was used to raise the double tee.”<sup>21</sup> Under these circumstances, there was not substantial evidence in the record to support a finding that the hazard, if any, in the use of the spacer beam, was a recognized hazard. Accordingly, we must reverse.

**JUDGMENT OF THE CIRCUIT  
COURT FOR BALTIMORE  
COUNTY REVERSED. CASE  
REMANDED TO THAT COURT  
WITH INSTRUCTIONS TO  
REVERSE THE  
COMMISSIONER’S FINAL  
ORDER AND DECISION.**

**COSTS TO BE PAID BY THE  
COMMISSIONER OF LABOR  
AND INDUSTRY.**

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<sup>21</sup> As indicated, *supra*, Dr. Jin stated that lifting the double tee only at the SE corner resulted in 50 percent of the weight of the double tee being on the northwest tower, which doubled the load on that tower, causing the flange of the beam to buckle.