BEFORE THE
STATE OF CALIFORNIA
OCCUPATIONAL SAFETY AND HEALTH
APPEALS BOARD

In the Matter of the Appeal of: **TUTOR PERINI CORPORATION AND** **O & G INDUSTRIES, INC.** **1801 Century Park, East, Suite 500** **Los Angeles, CA 90067** **Employer**	**Inspection No.** **1486176** **DECISION AFTER RECONSIDERATION**

The Occupational Safety and Health Appeals Board (Board), acting pursuant to authority vested in it by the California Labor Code, issues the following Decision After Reconsideration in the above-entitled matter.

JURISDICTION

Tutor Perini Corporation and O & G Industries, Inc. (Employer) is a construction company. On July 31, 2020, the Division of Occupational Safety and Health (the Division), through Associate Safety Engineer, Sterling Wainscott (Wainscott), conducted an inspection of a construction site located at 2001 Century Park East in Los Angeles operated by Employer (site or worksite).

On January 13, 2021, the Division issued two citations to Employer alleging violations of safety orders set forth in title 8 of the California Code of Regulations.[1] Citation 1, Item 1 alleged a General violation of section 8406, subdivision (a) [failure to give prompt consideration to all safety suggestions]. Citation 2[2] alleged a Serious Accident-Related violation of section 3328, subdivision (a)(1) [failure to ensure equipment was used and operated as designed to safely sustain all reasonably anticipated loads in accordance with recognized engineering principles].

Employer filed a timely appeal of the citations, contesting the existence of the violations.

This matter was heard by Administrative Law Judge Rheeah Yoo Avelar (ALJ) on June 6, 2023, and July 25, 2023, and July 26, 2023. ALJ Avelar conducted the hearing with all participants appearing remotely via the Zoom video platform. David Donnell of Donnell, Melgoza & Scates LLP, represented Employer. Lisa Wong, Staff Counsel, represented the Division. At the time of hearing, the parties settled Citation 1, stipulating to a reclassification from a General to a Regulatory violation. Thus, only Citation 2 remained at issue.

[1] References are to title 8 of the California Code of Regulations unless otherwise specified.
[2] Citation 2 was later amended to include a violation of section 3328, subdivision (a)(2) [failure to use or operate equipment under the manufacturer's recommended conditions or, absent manufacturer recommendations, contrary to the engineered design].

This matter was submitted February 28, 2023, and on March 22, 2024, the ALJ issued a Decision affirming Citation 1, pursuant to the stipulation of the parties, and vacating Citation 2.

The Division filed a timely petition for reconsideration challenging the ALJ's Decision. The Division argues the evidence does not justify the Decision's findings of fact and the findings of fact do not support the Decision. Employer filed an answer.

On May 22, 2024, the Board took the petition under submission, however due to a clerical oversight, the Order taking the petition under submission was not served on the parties until July 17, 2024.

In making this decision, the Board has engaged in an independent review of the entire record in this matter. The Board has also considered the pleadings and arguments filed by the parties. The Board has taken no new evidence.

ISSUES

1. Did the Division demonstrate Employer violated section 3328 by a preponderance of the evidence?

FINDINGS OF FACT

After review of the entire record, the Board makes the following factual determinations.

1. Employer was in the process of digging a tunnel for the Metro Rail. The construction of the tunnel first required boring a tunnel with a tunnel boring machine (TBM). The TBM required a large temporary steel tube to launch and support it. The temporary steel tube was constructed of several individual components. was constructing a temporary steel tube consisting of eight rings, each ring was comprised of six curved rectangular segments, the smallest of which was called the key segment.
2. Employer designed, built, and used a two-rail track system called a temporary segment feeder (TSF) specifically to transport the larger steel standard segments "Standard segment" and smaller steel key segments "Key segment" to their point of installation.
3. Transportation of "Standard" and "Key segments" along the TSF was performed manually using muscle power, prybars, Hilman rollers[3], chain falls, and come-alongs.
4. When centered on the TSF the "Key segment" only had two to two-and-a-half inches of surface actually in contact with the Hilman rollers of the TSF.
5. "Key segments" would frequently slide off center and lose contact with the Hilman rollers.
6. Employer developed a process for when a "Key segment" began to move off center or fully slide off a Hilman roller. Specifically, employees would use muscle power, come-alongs, and prybars to redirect and/or lift the "Key segment" back onto the Hilman roller.
7. The TSF had an estimated maximum capacity of 8,000 pounds of static weight, and each "Key segment" weighed 1,250 pounds.

[3] A Hillman roller consists of linked rollers that form a continuous chain around a fixed point, similar to a miniature tank tread, and Hillman rollers are used to assist moving heavy materials.

8. The Division did not offer evidence at the hearing establishing that the manufacturer's recommendations were not available.
9. Clinton Thompson (Thompson), an employee of Employer, suffered a crushing injury to his hand while transporting a "Key segment" on the TSF.

DISCUSSION

1. Did the Division demonstrate Employer violated section 3328 by a preponderance of the evidence?

In Citation 2, Employer was cited for an alleged violation of section 3328, subdivision (a)(1) and (a)(2), which states:

> (a) All machinery and equipment:
> (1) shall be designed or engineered to safely sustain all reasonably anticipated loads in accordance with recognized engineering principles; and
> (2) shall not be used or operated under conditions of speeds, stresses, loads, or environmental conditions that are contrary to the manufacturer's recommendations or, where such recommendations are not available, the engineered design.

The Division's alleged violation description stated:

> Prior to and during the course of the investigation, in the BR Tunnel in the Constellation Launch Box, the employer failed to ensure that the temporary segment feeder that was used and operated was designed to safely sustain all reasonably anticipated loads, including but not limited to steel segment keys. As a result, on or about July 21, 2020, an employee suffered serious crushing injuries when a steel segment key partially dropped off the temporary segment feeder.

The Division has the burden of proof to establish each element of the alleged violation by a preponderance of the evidence. (*National Distribution Center, LP, Tri State Staffing*, Cal/OSHA App. 12-0391, Decision After Reconsideration (Oct. 5, 2015) (*National Distribution*).) The Division must also prove employee exposure to the violative condition. (*Ibid*.)

Section 3328, subdivision (a), has two separate requirements—listed in subdivisions (a)(1) and (a)(2)—and it is written in the conjunctive, meaning a violation may be shown by demonstrating that Employer failed to satisfy either one of the two requirements. (*HHS Construction*, Cal/OSHA App 12-0492, Decision After Reconsideration (Feb. 26, 2015).) Subdivision (a)(1) requires that all machinery and equipment be designed to safely sustain all reasonably anticipated loads in accordance with recognized engineering principles. Subdivision (a)(2) requires that machines and equipment not be used or operated under conditions of speeds, stresses, loads, or environmental conditions that are contrary to the manufacturer's recommendations or, where they are unavailable, the engineered design. We discuss each in turn.

a. Did Employer violate section 3328, subdivision (a)(1) by failing to ensure the TSF safely sustained "Key segments"?

To prove a violation of section 3328, subdivision (a)(1), the Division must establish three elements: (1) there is relevant machinery or equipment, (2) that it was subject to a reasonably anticipated load; and (3) the machinery or equipment was not designed in accordance with recognized engineering principles to safely sustain the load.

Here, there is no dispute the first two elements were met. The TSF is a piece of equipment. The TSF was subjected to reasonably anticipated loads in the form of Standard and "Key segments". As such, the analysis turns on whether the TSF was designed in accordance with recognized engineering principles to sustain both Standard and "Key segments".

To decide the proper interpretation of the regulation, we apply the rules of statutory construction. (*Department of Industrial Relations v. Occupational Safety & Health Appeals Bd.* (2018) 26 Cal.App.5th 93, 100; *Auchmoody v. 911 Emergency Services* (1989) 214 Cal.App.3d 1510, 1517; *Webcor Builders, Inc.*, Cal/OSHA App. 06-3031, Denial of Petition for Reconsideration (Jan. 11, 2010).)

Where a term is not defined, we begin by considering its plain meaning; "it can be assumed that the Legislature was referring to the conventional definition of that term." (*OC Communications, Inc.*, Cal/OSHA App. 14-0120, Decision After Reconsideration (Mar. 28, 2016), citing *Heritage Residential Care, Inc. v. Division of Labor Standards Enforcement* (2011) 192 Cal.App.4th 75, 82.) "The rules of statutory and regulatory interpretation require that terms be given their ordinary meaning if not specially defined otherwise." (*California Highway Patrol*, Cal/OSHA App. 09-3762, Decision After Reconsideration (Aug. 16, 2012).) To obtain the ordinary meaning of a word, the Appeals Board may refer to its dictionary definition. (*Fedex Freight, Inc.*, Cal/OSHA App. 317247211, Decision After Reconsideration (Dec. 14, 2016).)

The rules of regulatory construction also require courts and the Board "to give meaning to each word and phrase and to avoid a construction that makes any part of a regulation superfluous." (*Donley v. Davi* (2009) 180 Cal.App.4th 447, 465; *Sully-Miller Contracting Company v. California Occupational Safety and Health Appeals Board* (3d Dist. 2006) *138* Cal.App.4th 684, 695.) We construe the regulations by according the words in the regulation their common sense meaning based on the evident purpose for which the enactment was adopted. (*In re Rojas* (1979) 23 Cal. 3d 152, 155.) Where a word of common usage has more than one meaning, the one which will best attain the purposes of the statute (or regulation) should be adopted, even though the ordinary meaning of the word is thereby enlarged or restricted and especially in order to avoid absurdity or prevent injustice. (*Katz v. Los Gatos-Saratoga Joint Union High School Dist.,* (2004) 117 Cal.App.4th 47, 54 (*Katz*.) Regulations are not reviewed in isolation but are instead harmonized with the overall scheme of law. (*De La Torre v. California Horse Racing Bd.* (2017) 7 Cal.App.5th 1058, 1066.)

Here, the definition and application of the regulatory language is disputed. The ALJ's Decision determined that the TSF safely sustained the "load." In reaching this determination, the

ALJ determined that the terms "sustain" and "load" merely referred to the ability of the TSF to support the weight of a "Key segment" or load when it was resting on the TSF. She found that these terms did not refer to the safe movement or transport of the load. She found that the TSF could support a load of 4,000 pounds and the "Key segments" weighed only 1,250 pounds.

The Division argues that the ALJ's definitions for the terms "safely sustain" and "load" were too narrow, thereby endangering workers. The Division argues that the terms should be interpreted to require that the equipment safely support the "Key segments" (or load) during transport, i.e. while they were being moved, not just be able to withstand the load's static weight. Employer argues that because the TSF was engineered to hold up at least 8,000 pounds the TSF was designed to safely sustain "Key segments" because "Key segments" only weighed 1,250 pounds.

We have examined multiple dictionary definitions for the word "sustain." Every definition establishes that sustain means to hold up a static amount of weight. However, every definition also includes an accepted alternative meaning that sustain means to carry or to hold up weight in motion. ("to support the weight of; also to carry or withstand (a weight or pressure)"[4] "To support physically; to hold up, keep from falling or breaking… Also sometimes: to carry, bear."[5] "to support, hold, or bear up from below; bear the weight of, as a structure. Synonyms: carry."[6])

When there is more than one definition, we are to apply the one that will best attain the purposes of the statute (or regulation). (*Katz v. Los Gatos-Saratoga Joint Union High School Dist., supra*, 117 Cal.App.4th at 54.) The general purpose of safety orders are to ensure employers maintain a safe working environment. (Lab. Code, § 6401.) As such, when interpreting terms of a relevant statute or regulation, we must keep the purpose behind the Occupational Safety and Health Act of 1973 in mind. (*Carmona v. Division of Industrial Safety* (1975) 13 Cal.3d 303, 313.) Specifically, safety orders and the Labor Code are to be liberally interpreted to achieve a safe work environment for workers. (*Id*.) For example, the California Supreme Court considered whether a "short-handled hoe" was an unsafe hand tool in the context of a regulation that stated, "Unsafe hand tools shall not be used." (*Carmona, supra*, 13 Cal.3d at p. 306-307.) The Court held that in interpreting the regulation, it is inappropriate to solely consider the tool's nature in the abstract, i.e. whether the tool had some intrinsic flaw rendering it unsafe. (*Carmona, supra*, 13 Cal.3d at p. 310-313.) The Court observed that the comprehensive sweep of the enabling legislation (Labor Code sections 6401, 6403, 6306, 6307, and 6308) "make clear that the terms of the legislation are to be given a liberal interpretation for the purposes of achieving a safe working environment." (*Ibid*.) Accordingly, the Court noted that the manner of the tool's usage must also be considered. (*Ibid*.) "If the short-handled hoe is so designed that it can be used by the worker only in a stooped posture that is dangerous to his health it could be found to be an 'unsafe hand tool.'" (*Carmona, supra*, 13 Cal.3d at p. 313.)

In the instant case, when applying the rules of regulatory construction and our mandate to liberally construe safety orders, we must define "safely sustain" to mean more than only the ability

[4] (Merriam-Webster, www.merriam-webster.com/dictionary/sustain (Jul. 10, 2024).);
[5] (Oxford English Dictionary, https://www.oed.com/dictionary/sustain_v?tab=meaning_and_use#19470430. (July 10, 2026).)
[6] Dictonary.com, https://www.dictionary.com/browse/sustain. (July 10, 2026).)

to hold a static weight. The TSF was explicitly designed to both hold up and laterally move Standard and "Key segments". As such, we must consider both the TSF's ability to physically support Standard and "Key segments" as well as whether it can safely move both types of segments along the length of the TSF to determine if the TSF can "safely sustain" its intended load.

Here, it is clear the TSF could hold the static weight of the "Key segments". However, the "Key segments" regularly slid off the Hilman rollers and only moved down the TSF without falling if they were perfectly aligned within very narrow margins of error due to the inherent design of the TSF. That small margin of error was a design feature of the TSF which must be considered in the context of whether the TSF can safely sustain all reasonably anticipated loads.

However, before we can fully determine if the TSF safely sustains its intended load, we must also consider what recognized engineering principles are applicable.

In the Decision, the ALJ faulted the Division for "present[ing] no evidence to show which engineering principles the TSF violated." The ALJ is correct that the Division must produce evidence of engineering standards and show that Employer violated those standards to establish a violation of section 3328, subdivision (a)(1). However, we disagree with the ALJ's finding that the Division failed to provide evidence of engineering standards.

We do not find that recognized engineering principles always require expert testimony, academic citations, industry standards, published articles or recognition from relevant organizations. Ordinary common sense, common experience, and observation can also be sufficient to establish a recognized engineering principle depending on context. For example, it is well within common experience to determine a bucket with dozens of holes that cause the bucket to leak is not properly engineered to hold water. Similarly, a piece of equipment that regularly fails to perform one of its intended purposes likely does not meet a recognized engineering principle.

Our finding regarding expert testimony is well supported by both California and federal courts because both only allow expert testimony if the subject matter is beyond common experience. (Evid Code § 801; Fed Rules Evid., rule 701; *Conolley v. Bull* (Cal. App. 1st Dist. 1968), 258 Cal. App. 2d 183 [Expert opinions are admitted for matters beyond the ability of a juror's common experience to understand and need assistance to form an opinion]; (*New v. Consolidated Rock Products Co.* (1985) 171 Cal.App.3d 681, 692 citing *People v. Cole* (1956) 47 Cal.2d 99.) [Expert testimony is excluded when the subject of inquiry is one of such common knowledge that men of ordinary education could reach a conclusion as intelligently as the witness].) Here, we find the "Key segments" were too small to safely be transported via the TSF. This means specifically, that the TSF's inherent design caused the "Key segments" to regularly slide off the Hilman rollers. This does not meet the recognized engineering principle that the rails of a transportation device should not allow a 1,250-pound steel plate to routinely slip off the rollers used to facilitate movement along the transport device which then requires manual realignment.

Further, we find Fed OSHA's regulations and guidance related to Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)[7] are both instructive and

[7] RAGAGEP is specifically used in process safety management to prevent catastrophic failure in facilities that handle hazardous chemicals or large amounts of flammable gas or liquids.

persuasive. (29 C.F.R. § 1910.119(d); see also Occupational Safety and Health Administration, Letter of Interpretation, *RAGAGEP in Process Safety Management Enforcement*, (May 11, 2016) https://www.osha.gov/laws-regs/standardinterpretations/2016-05-11.)

Fed OSHA identifies multiple sources and examples of acceptable RAGAGEP. These include widely adopted codes, consensus documents, non-consensus documents, internal standards, manufacturer recommendations, and prior operating experience. This broad approach requires employers to determine the most protective applications appropriate to the specific worksite, situations, and applications. As such, RAGAGEP is not limited to what is prescribed by scientists or engineers but can also be developed by employers for:

1) Requirements of unique equipment when no other RAGAGEP exists.
2) Supplementing or augmenting RAGAGEP that only partially or inadequately addresses equipment.
3) Controlling hazards more effectively than the available RAGAGEP if necessary.
4) Addressing hazards when RAGAGEP used for existing equipment are outdated and no longer describe good engineering practice.

(Fed OSHA, Letter of Interpretation, *RAGAGEP in Process Safety Management Enforcement*, *supra*.) In short, Fed OSHA recognizes that even in facilities handling highly complex volatile substances, no single definition of "recognized engineering principles" is sufficient to ensure worker safety. Rather, a broad spectrum of sources for acceptable standards and practices is required.

Given the facts, the CA Supreme Court's *Carmona* opinion, and Fed OSHA's emphasis on consulting a broad spectrum of sources for the determination of acceptable standards and practices, which here translates to engineering principles, we cannot find that the TSF was designed to safely sustain reasonably expected loads in accordance with accepted engineering principles. We find the Division met its burden of proof, as discussed above, establishing a violation of section 3328, subdivision (a)(1).

Accordingly, we reverse the portion of the ALJ's Decision vacating Citation 2, Item 1. The Division established Employer violated section 3328, subdivision (a)(1). Citation 2, Item 1, is affirmed. Employer raised no challenge to the violation classification or the penalty calculations. Employer also explicitly stipulated as to the same on the record, thus a penalty of $18,000 is assessed.

b. Did Employer violate section 3328, subdivision (a)(2) by using the TSF against manufacture recommendations?

Section 3328, subdivision (a)(2) states all machinery and equipment shall not be used or operated under conditions of speeds, stresses, loads, or environmental conditions that are contrary to the manufacturer's recommendations or, where such recommendations are not available, the engineered design.

As mentioned above, subdivisions (a)(1) and (a)(2) of section 3328 are written in the

conjunctive, requiring employers to satisfy both conditions. Section 3328 subdivision (a)(1) looks at whether equipment or machinery is properly designed to perform its intended purpose. Section 3328 subdivision (a)(2) looks at whether equipment or machinery is being properly used for its designed purpose. This distinction is important because all the parties conflated these two separate requirements. Additionally, analysis under section 3328, subdivision (a)(2) generally need only occur if equipment or machinery satisfies the requirements of section 3328 subd. (a)(1) because using badly designed equipment or machinery is, by definition, unsafe.

To prove a violation of section 3328 subdivision (a)(2), the Division must satisfy one of the following tests.

The first test consists of two steps, the first of which is to establish the manufacturer's recommendations. The second step is to determine if a machine or piece of equipment was used in violation of the manufacturer's recommendations.

The second test also consists of two parts. First, the Division here must show that no manufacturer recommendations exist or are that the manufacturer recommendations are otherwise unavailable. Second, the Division must establish that the use violates the engineered design of the machine or equipment.

The ALJ found here that the Division did not introduce into evidence manufacturer's recommendations for the TSF and as such, the Division did not, and could not, establish that Employer created a load condition contrary to a manufacturer's recommendation. The ALJ further held that the Division also failed to provide evidence of efforts it made to acquire the manufacturer's recommendations from Employer or otherwise show that no such recommendations were available.

Despite the Division failing either to provide manufacturer recommendations or establish that such recommendations were not available, the ALJ proceeded to analyze whether the TSF was operated under conditions contrary to the engineered design. The ALJ held that the Division produced no engineering design principles, measurements of the TSF, no measurements of the arc length of a "Key segment", or measurements of the arcs of any "Standard segment"s and as such, provided no reliable evidence on which the Board could make a determination as to whether transporting "Key segments" on the TSF was contrary to its engineered design. Additionally, the ALJ focused heavily on the difference in shape between the trapezoidal permanent concrete segments and the rectangular temporary steel segments.

Ultimately, the ALJ found the Division failed to establish a violation of section 3328 subd. (a)(2) because it presented no recognized engineering principles, took no measurements, failed to identify any impermissible limits, entirely misconceptualized the "Key segment" dimensions, and provided no proof that the Hillman rollers or assistive tools employed rendered the "Key segments" unsuitable for loading onto the TSF or that using the assistive tools indicated TSF design faults rather than merely TSF design features.

We find, like the ALJ did, that the Division failed to produce any evidence that the use of the TSF was against the manufacturer's recommendations or show such recommendations were

unavailable. Therefore, no violation of section 3328 subdivision (a)(2) was established.

However, we also note that the initial failure of the Division to offer the manufacturer's recommendations into evidence or establish the unavailability of manufacturer's recommendations makes any further findings unnecessary. i.e. discussion of engineering principles, measurements, and other factors. We also reiterate that the analysis under section 3328 subdivision (a)(2) is not whether machines or equipment are designed well, as that determination is made by application of section 3328 subdivision (a)(1), rather the analysis for section 3328 subdivision (a)(2), must be whether the machine or equipment is being used properly.

Finally, we recognize that when an employer creates their own custom machine, they are the "manufacturer" for purposes of a section 3328 subdivision (a)(2) analysis. As such, an employer who creates their own custom machine is still required to establish reasonable and safe operating limitations/parameters and train employees accordingly. However, as discussed above, further analysis in the instant case is unnecessary, as we find the TSF was not designed to safely sustain "Key segments".

DECISION

The Board finds that the Division established a violation of section 3228, subdivision (a)(1) and we reverse the ALJ's finding vacating Citation 2 and instead affirm this part of the citation. The penalty for Citation 2, as a Serious, Accident-related violation is assessed to be $18,000.

The Board finds the Division failed to establish a violation of section 3328, subdivision (a)(2).

OCCUPATIONAL SAFETY AND HEALTH APPEALS BOARD

/s/ Ed Lowry, Chair
/s/ Judith S. Freyman, Board Member
/s/ Marvin P. Kropke, Board Member

FILED ON: 08/13/2026