

**BEFORE THE
STATE OF CALIFORNIA
OCCUPATIONAL SAFETY AND HEALTH
APPEALS BOARD**

In the Matter of the Appeal of:

**ACCO ENGINEERED SYSTEMS
6446 E. WASHINGTON BOULEVARD
COMMERCE, CA 90040**

Employer

Inspection No.
1233763

DECISION

Statement of the Case

ACCO Engineered Systems (Employer) specializes in heating, ventilation, and air conditioning systems. Beginning May 18, 2017, the Division of Occupational Safety and Health (the Division), through Associate Safety Engineer Terry Hammer (Hammer), conducted an inspection of the construction site located at the Canary Hotel, 31 W. Carrillo Street, in Santa Barbara, California (the job site.)

On September 29, 2017, the Division cited Employer for three violations, only two of which remain at issue.¹ The Division alleges that Employer failed to ensure the legs of a portable gantry crane were secured to the I-beam, and that Employer failed to keep a load as close to the floor as possible and centered on the I-beam while pushing the gantry rather than the load when moving the crane. Employer filed timely appeals of the citations, contesting the existence of the violations, the classifications of the citations, the reasonableness of abatement requirements, and the reasonableness of the proposed penalties. Employer also raised a series of affirmative defenses.²

This matter was heard by Leslie E. Murad, II, Administrative Law Judge (ALJ) for the California Occupational Safety and Health Appeals Board. On March 24, 2021, and on July 28, 2021, ALJ Murad conducted the video hearing with all participants appearing remotely via the Zoom video platform. Attorney Lisa Prince of The Prince Firm, represented Employer. Martha Casillas, Staff Counsel, represented the Division. The matter was submitted on December 30, 2021.

¹ Citation 1, Item 1, was reclassified to a Notice in Lieu of Citation by stipulation of the parties at the hearing and will not be addressed in this decision.

² Except where discussed in the Decision, Employer did not present evidence in support of its affirmative defenses, and said defenses are therefore deemed waived. (*RNR Construction, Inc.*, Cal/OSHA App. 1092600, Denial of Petition for Reconsideration (May 26, 2017).)

Issues

1. Did Employer fail to secure the I-beam to the legs of a portable gantry crane?
2. Did Employer fail to comply with the manufacturer's recommendations while moving the portable gantry crane?

Findings of Fact

1. Employer used a SPANCO one-ton portable gantry crane to move an air conditioner compressor.
2. While employees moved the gantry crane, one of its supports collapsed, and the suspended load struck Raul Zavala, (Zavala), who worked for ACCO Engineered Systems.
3. Employer did not place pins in the I-beam where it connects to the upright supports before moving the gantry crane and the load.
4. The I-beam was secured to the upright supports by means of sleeves, the weight of the I-beam, and the additional weight of the load.
5. Pins were not necessary to secure the I-beam to the upright supports while moving the load.
6. The absence of pins was not related to the collapse of the support.
7. The crew using and operating the portable gantry crane were all trained and skilled in the use and proper operation of the crane.
8. Employees pushed the gantry frame and not the load to move the crane on its wheels.
9. The load on the gantry frame was carried as low as possible to the floor and was centered on the I-beam while the gantry frame was in motion.

Analysis

1. Did Employer fail to secure the I-beam to the legs of a portable gantry crane?

California Code of Regulations, title 8, section 3328, subdivision (e)³, provides:

(e) Machinery and equipment components shall be designed and secured or covered (or both) to minimize hazards caused by breakage, release of

³ Unless otherwise specified, all references will be to sections of title 8 of the California Code of Regulation.

mechanical energy (e.g., broken springs), or loosening and/or falling unless the employer can demonstrate that to do so would be inconsistent with the manufacturer's recommendations or would otherwise impair employee safety.

In Citation 2, Item 1, the Division alleges:

Prior to and during the course of the inspection, including but not limited to April 17, 2017, employees of ACCO Engineered Systems Inc., did not ensure that the legs of the SPANCO 1 ton portable gantry system were secured to the I-beam before loading and moving a York Compressor on it.

The Division has the burden of proving a violation by a preponderance of the evidence. (*ACCO Engineered Systems*, Cal/OSHA App. 1195414, Decision After Reconsideration (Oct. 11, 2019).) "Preponderance of the evidence" is usually defined in terms of probability of truth, or of evidence that when weighed with that opposed to it, has more convincing force and greater probability of truth with consideration of both direct and circumstantial evidence and all reasonable inferences to be drawn from both kinds of evidence." (*Timberworks Construction, Inc.*, Cal/OSHA App. 1097751, Decision After Reconsideration (Mar. 12, 2019).) As part of its burden, the Division also bears the burden of proving employee exposure to the violative condition addressed by the safety order. (*Home Depot, USA, Inc.*, Cal/OSHA App. 1011071, Decision After Reconsideration (May 16, 2017).)

The Division bears an evidentiary burden of proving that a safety standard which is referred to in a citation applies to the specific factual circumstances in which a citation is issued. (See e.g. *Travenol Laboratories, Highland Division*, Cal/OSHA App. 76-1073, Decision After Reconsideration, (Oct. 16, 1980) and *Carris Reels of California*, Cal/OSHA App. 95-1456, Decision After Reconsideration, (Dec. 6, 2000). Where the Division's case presents a factual situation not within the contemplation of the cited safety order, the alleged violation must be set aside. (See also *Carver Construction Co.*, OSHAB 77-378, Decision After Reconsideration, (Mar. 27, 1980), citing *Johnson Aluminum Foundry*, OSHAB 78-593, Decision After Reconsideration (Aug. 28, 1979).

Here, Employer used a SPANCO one-ton portable gantry crane to remove an air conditioning compressor from the roof at the Canary Hotel job site and install a new compressor. One of the uprights on the crane failed and this caused the compressor load to swing into employee Zavala, resulting in his injury.

The gantry crane at issue resembles a sawhorse. An I-beam (also called a girder), rests above the two "A-frame" upright supports. There are wheels at the base of the uprights so the crane can be easily moved. A pair of 5.5-inch sleeves, found on each end of the I-beam, fit over the top of each upright support, thus connecting the I-beam to the supports of the crane. A pin may be inserted in a sleeve to secure its connection.

Hammer testified that Employer admitted that the pins were not placed in the uprights connecting the I-beam to the uprights. Employer did not dispute this point. Foreman Michael Kaufman (Kaufman), and service journeyman crew member Ruben Carlos (Carlos) were part of the crew that moved the compressors. They both testified that the pins were not placed in the sleeve to secure its connection. They also confirmed the location of the collapse. The Division presented no evidence that pins were necessary to secure the I-beam to the uprights.

The Division must show that a safety order applies. In *Brunton Enterprises, Inc.*, Cal/OSHA App. 08-3445, Decision After Reconsideration (October 11, 2013), (*Brunton Enterprises*), the Division alleged that an employer did not secure crane components, but failed to present evidence showing that components were not secured. The Division in that instance did not offer any evidence of breakage, release of mechanical energy, loosened or falling pieces, or any related hazards. The Appeals Board dismissed the citation because the Division failed to demonstrate that the safety order applied.

As in *Brunton Enterprises*, the Division in the instant matter presented no evidence to show the safety order applies. The Division did not show that the crane components were not secured. The Division presented no evidence showing that the design requirements of the gantry crane required pins to secure the I-beam to the upright, or that such pins would have secured the gantry crane against the particular type of collapse that occurred.

Employer's expert witness, Bradley Closson (Closson), testified that he worked with cranes and provided crane training since the 1980s. Closson was hired by the State of California to teach compliance officers on crane standards and applications. He currently conducts investigations of crane accidents and has testified in the past as a crane expert in state and federal courts, as well as before the Appeals Board, most recently in 2019. Closson watched the entire hearing and observed the evidence presented and the testimony of all witnesses. His testimony is credited.

Closson testified that the failure to have pins securing the I-beam to the upright did not violate the parameters or the specifications of the manufacturer in the crane's operation or uses, and did not create a hazard. He also testified that the lack of pins also did not create a possibility of breakage of the crane, or the release of stored or mechanical energy. Closson further testified that the lack of pins did not create a hazard associated with loosening or falling of any parts since that physically could not occur. Closson explained this is because gravity pulls down, forcing the sleeve on top of the upright. He added that, even if the crane is unloaded, the weight of the girder itself pushing down holds the I-beam in place. Closson further testified the I-beam was secured to the upright. In his expert opinion, the pins would only come into play if the I-beam of the crane was being lifted up and off of the uprights of the crane and was not hoisting a load.

The record supports finding that the 5.5- inch sleeves and the I-beam's own weight secured it to the uprights. The I-beam was further secured by the weight of the loaded compressor. Closson's testimony that there was no relationship between the upright failure and

the lack of pins was compelling and is credited. The upright that failed causing the accident had nothing to do with the securement or the absence of the pins. The safety order does not apply under the facts in this instance.

Therefore, Employer's appeal of Citation 2 is granted. Citation 2 is dismissed.

2. Did Employer fail to comply with the manufacturer's recommendations while moving the gantry crane?

California Code of Regulations, title 8, section 3328, subdivision (a) (2), provides:

(a) All Machinery and equipment:

[...]

(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.

In Citation 3, Item 1, the Division alleges:

Instance 1:

Prior to and during the course of the investigation, including but not limited to April 21, 2017, employees moving a loaded hoist did not follow the manufacturer's written warnings of pushing the hoist, not the load.

Instance 2:

Prior to and during the course of the investigation, including but not limited to April 21, 2017, employees moving a loaded hoist did not follow the manufacturer's written warnings of keeping the load as close to the floor as possible and positioning the load in the center of the I-beam. As a result, on or about April 21, 2017, a rigger suffered a serious injury when the loaded hoist came over and landed on his leg.

The Division need only prove one instance of a violation to establish a violation of a safety order. (*Shimmick Construction Company, Inc.*, Cal/OHSA App. 1059365, Decision After Reconsideration (Jul. 5, 2019).)

The SPANCO gantry crane at issue features two methods of moving loads. The I-beam suspends a device called a trolley that allows movement of a load from one end of the I-beam to the other, otherwise called, "trolleying the load." Wheels at the base of the legs allow the entire

gantry crane to move, or “travel” the load. Employees used both systems of traveling and trolleying the load to remove the old compressor and to install the new compressor at the job site.

Hammer testified that she reviewed the SPANCO Crane manual. Under a section in the manual entitled, “Warnings,” the manufacturer warns against pushing the load, and instructs that the gantry be pushed instead. The manual also advises to keep the load as close to the floor as possible and to position the load in the center of the I-beam when moving the gantry. It provides:

Push the gantry, not the load.

When moving gantry, keep load as close to the floor as possible and position the load in the center of the I-beam.

After interviewing Zavala, and the other crew members who worked this job, Carlos, Kaufman and, Ray DeLung (DeLung), Hammer determined based upon their statements and the roof surface being uneven, that Carlos and Kaufman incorrectly pushed the load instead of the gantry and did not keep the load as close to the roof surface as possible and centered on the I-beam while in movement.

Instance one: Did employees impermissibly push the load rather than the gantry?

The crew working on the day of the accident, Zavala, Carlos, and Kaufman, all testified that they were very familiar with the gantry crane being used. The I-beam had a trolley attached to it with a chain fall. The chain fall is an adjustable lifting device with a hook at the bottom of the chain. The crew would hook the load and then lift the load up and down with the chain fall toward the I-beam. The crew lifts the load off the ground by using the chain fall and then the crew rolls (travels) the load with use of the gantry. The crew then can move the load from left to right across the gantry by trolleying the load along the I-beam.

On the day of the accident, the crew moved the compressor using the gantry crane by traveling the load. Once they reached the wall, they trolleyed the load over the wall. As the manufacturer recommended, the crew pushed the gantry to travel the load and pushed the load to trolley the load from side to side on the I-beam over the wall. The crew kept the load as close to the floor as possible. Since the wall was 42 inches they raised the load to 43 inches to clear the wall. The crew used their hands on the uprights to travel the load. Once they reached the wall, they trolleyed the load by pushing the load over the wall where they planned to then lower it to a cart. The instance at issue here happened while they were traveling the load. Kaufman and Carlos were pushing the gantry with their hands on the upright when the upright failed, tipping the load on to Zavala. Zavala’s hands were on the upright pulling and guiding the crane when the upright failed. Kaufman described the upright failure as a “snap”. The load was as low as it

possibly could be to the floor when the upright failed. Exhibit L shows examples of a trolley and a chain fall on the crane.

All crew members testified that they pushed the hoist to move or travel the load, and pushed the load when they had to trolley the load. The crew followed the manufacturer's recommendations on moving the hoist and the load. Carlos and the other crew members testified the load was kept as low to the surface as possible. The incident happened when the upright failed.

Employer's expert witness Closson testified that he observed all the testimony provided in the hearing as well as observed the evidence presented. Closson testified that if someone must trolley a load, the load cannot be kept centered on the I-beam since the nature of trolleying is to move the load from side to side along the I-beam on the hoist. What the crew did in traveling the load and trolleying the load was consistent with how the manufacturer intended for the crane to be used.

Closson further testified that the gantry crane was used within the parameters as designed by the manufacturer. He found nothing in the crew's operation that violated the parameters of the manufacturer's expected operations or uses. Nothing in the testimony or the evidence he observed at the hearing was contrary to the manufacturer's specifications. (Closson, Transcript, p.124, L. 24-25, p.125, L. 1-17.)

The regulation is limited, prohibiting usage only under conditions of speed, stresses, loads, or environmental conditions that are contrary to the manufacturer's recommendations. Thus, not every deviation from the manufacturer's manual is a violation the safety order. Only failures to operate under any of the four specified conditions may be cited.

The Division did not provide any definitions for the four conditions contained in the regulation for either of the instances. Words within an administrative regulation are to be given their plain and commonsense meaning, and when the regulation is clear, there is a presumption that the regulation means what it says and the plain language controls. (*AC Transit*, Cal/OSHA App. 08-135, Decision After Reconsideration (Jun. 12, 2013).) Where a statutory or regulatory term is not defined, "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).) 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 require courts and the Appeals 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.) Accepted canons of statutory construction oblige "giv[ing] meaning to each word if possible and avoid a construction that would render a term surplusage." (*Sully-Miller Contracting Company v.*

California Occupational Safety and Health Appeals Board (3d Dist. 2006) 138 Cal.App.4th 684, 695.) The same rules of construction and interpretation that apply to statutes govern the construction and interpretation of administrative regulations. (*California Highway Patrol*, Cal/OSHA App. 09-3762, Denial of Petition for Reconsideration (Aug. 16, 2012).)

The Division also failed to identify which, if any, of the four itemized conditions Employer did not observe. In order to provide a complete analysis, the following definitions and inferences are adopted.

1. Speed Conditions

The Division did not offer any evidence about the imposition of speed conditions on the gantry crane that was contrary to the manufacturer's recommendations that would trigger a violation of the regulation. The Division did not identify the condition of speed as being at issue or provide any evidence that Employer operated contrary to speed recommendations. There is no evidence regarding the speed of the gantry crane while it traveled on its wheels, or the speed of the trolley on the I-beam.

2. Stress Conditions

The General Industry Safety Orders do not provide a definition of the word "stress." Based upon the ordinary use of the term, the Appeals Board has accepted the definition of "stress" as a force acting across a unit area in a solid material resisting the separation, compacting, or sliding that tends to be induced by external forces." (*The Herrick Corporation*, Cal/OSHA App. 99-786, Decision After Reconsideration (Dec. 18, 2001).) "Stress" and "load" are not the same term. The Division did not identify the condition of stress as being at issue or provide any evidence that Employer operated contrary to stress recommendation. The Division did not present any evidence establishing that the gantry crane was stressed, or was moving on its wheels under conditions of stress beyond the manufacturer's recommendations.

3. Load Conditions

The General Industry Safety Orders do not provide a definition for "load." The Appeals Board has established that "load" may have several meanings depending on the context. (*Michels Corp DBA Michels Pipeline Construction*, Cal/OSHA App. 07-4274, Decision After Reconsideration (Aug. 13, 1987).) The Appeals Board has defined "load" as a weight or quantity resting upon something else regarded as its support." (See *Western States Steel, Inc.*, Cal. App. 84-1089, Decision After Reconsideration (Aug. 13, 1987).) Here, the crane was moving a load. However, again the Division did not identify the condition of load as being at issue or present evidence that the gantry crane operated under conditions of loads contrary to the manufacturer's

recommendations. The Division did not provide any parameters regarding what load conditions must exist or apply to the gantry crane when it is traveling on its wheels.

4. Environmental Conditions

The safety order does not define “environmental condition.” The Merriam-Webster dictionary defines “environment” as “the circumstances, objects, or conditions by which one is surrounded.” The Division did not identify any environmental conditions as being at issue; nor did it provide any evidence that Employer operated contrary to environmental recommendations. The surface of the rooftop was irregular, but the Division did not provide any evidence to indicate that any environmental features were contrary to the manufacturer’s recommendations regarding movement of the gantry crane on its wheels.

The Division did not explicitly specify which of the four specified conditions applied to the maneuvering of the device or the load. The Division also did not provide evidence of any of the recommendations related to the four conditions or evidence that Employer contravened any of them. Thus, the Division ultimately failed to show that employees moved the gantry crane in a manner contrary to the manufacturer’s recommendations.

Instance two: Did employees keep the load as close to the floor as possible and centered on the I-beam while moving the gantry?

Although the Division did not specify which of the four itemized conditions describe this recommendation, the load condition shall be applied. It shall further be inferred that load placement is a condition.

The Division presented testimony by Hammer that since the roof of the hotel was uneven and had a slant, that the crew moving the compressor could not keep the load as close to the floor as possible. She further testified that the crew moving the compressor load had the load as low as they possible could going over the wall. The load needed to be lowered once it cleared the wall. She did not know how high the load was, but she knew the load cleared the wall but then the load had to be lowered to the cart to be moved. The upright collapse took place once they cleared the wall.

Zavala, Carlos, and Kaufman all testified that the wall they needed to clear was 42 inches, and they raised the load to 43 inches when they travelled the load. Thus, the load was kept as low to the floor as possible per the manufacturer’s recommendation.

The crane manual does not require a load be centered when the trolley feature is in operation. Closson testified that such a configuration of centering the load is not possible with a trolley system which actually enables an operator to slide a load from one end of the I-beam to

the other. If a load must remain centered, a trolley system would not be a feature and the I-beam would just be a piece of steel with a hole for the upper hook to connect. The manufacturer intended for the load to move along the I-beam. Centering a load would only be required if the entire crane were moving, i.e. traveling a load, not trolleying a load. The Division provided no evidence showing that the load was not centered when the gantry crane was in motion on its wheels.

The Division did not specify or show that any of the four specified conditions applied to the movement of the gantry crane or the load. Ultimately, the Division did not show that Employer failed to operate the gantry crane contrary to any of the manufacturer's recommendations. Accordingly, the Division failed to establish by a preponderance of the evidence that the crane was operated and used under conditions contrary to the manufacturer's recommendations.

Conclusion

Employer's appeals of Citation 2, Item 1, and Citation 3, Item 1, are granted and they are both dismissed.

Order

It is hereby ordered that Citation 2 and Citation 3 are vacated as indicated above and as set forth in the attached Summary Table.

It is further ordered that the proposed penalties for Citations 2 and 3 are both set aside as indicated above and as set forth in the attached Summary Table

Dated: 01/26/2022


Leslie E. Murad, II
Administrative Law Judge

The attached decision was issued on the date indicated therein. If you are dissatisfied with the decision, you have thirty days from the date of service of the decision in which to petition for reconsideration. Your petition for reconsideration must fully comply with the requirements of Labor Code sections 6616, 6617, 6618 and 6619, and with California Code of Regulations, title 8, section 390.1. **For further information, call: (916) 274-5751**