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June 7, 2021

SECRETARY OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Petitioner v. VULCAN CONSTRUCTION MATERIALS LLC, Respondent	CIVIL PENALTY PROCEEDING Docket No. SE 2020-0087-M A.C. No. 01-03143-504754 South Russellville Quarry

DECISION

Appearances: Winfield Ward Murray, Esq., U.S. Department of Labor, Office of the Solicitor, Atlanta, Georgia for Petitioner;
Chris Sorrows, Vulcan Construction Materials LLC, Birmingham, Alabama, for Respondent.

Before: Judge Manning

I. INTRODUCTION

This case is before me on a petition for assessment of civil penalty filed by the Secretary of Labor, acting through the Mine Safety and Health Administration ("MSHA"), against Vulcan Construction Materials LLC ("Vulcan") pursuant to sections 105 and 110 of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. §§ 815 and 820 (the "Mine Act"). The parties presented testimony and documentary evidence at a video conference hearing and filed post-hearing briefs. A single 104(a) citation with a total proposed penalty of $121.00 was adjudicated at the hearing. For reasons set forth below, I vacate the single citation at issue.

Although I have not included a detailed summary of all evidence or each argument raised, I have fully considered all the evidence and arguments. Further, my findings are restricted to the particular facts of this case and carry no precedential value beyond the evidence presented.

II. DISCUSSION WITH FINDINGS OF FACT AND CONCLUSIONS OF LAW

Vulcan operates the South Russellville Quarry (the "mine"), a surface limestone quarry in Franklin County, Alabama. On September 18, 2019, MSHA Inspector Tommy R. Wright

conducted a routine inspection of the mine.[1] Tr. 18. At the time of the inspection mine personnel were engaged in the process of stripping back material in order to have more rock to mine. Tr. 19. Trucks and other mobile equipment were being used during the stripping process.

At some point during the day Wright inspected the air brake system on a Mack water truck (the "truck" or the "water truck").[2] Tr. 20. Wright began the inspection by first having the driver move the truck onto a ramp, stop the truck with the service brake, and then set the parking brake to show that the brake would hold. Tr. 32. Both the service brake and parking brake held the truck on the ramp. Tr. 32, 68.

Wright then had the driver move the truck to flat ground in order to test the brake system for air leaks. Tr. 32. After the wheels were scotched and the truck turned off, Wright instructed the driver to place his foot on the brake pedal. Tr. 32, 54-55. Wright then walked around the truck listening for air leaks. Tr. 33. After hearing the sound of air escaping from somewhere under the truck, Wright got down on his hands and knees, crawled toward the sound, and eventually used his finger to feel air coming out of a small hole on the brake chamber for the wheel on the right side of the rear most axle of the truck.[3] Tr. 33-34, 53-57, 63. According to Wright, the air being expelled from the hole was "continuous" and persisted the entire time the driver "pushed the brake pedal down and had it engaged." Tr. 34-35, 54, 61. Wright agreed that the alleged leak did not start and stop as if the brakes were being pumped and "would go away" when the driver took his foot off the service brake pedal. Tr. 26, 34, 68. According to Wright, the chamber never sealed as it should have when the pedal was engaged. Tr. 66, 68-69.

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[1] Inspector Wright has been with MSHA for over ten years. Tr. 11. Although Wright is currently employed as an electrical specialist, in September of 2019 he was a general mine inspector and routinely inspected pits, highwalls, mobile equipment, and plants, among other things. Tr. 11. Wright trained as a journeymen inspector at the Mine Safety Academy. Tr. 13. While at the Academy he received both classroom and hands-on training regarding how to examine brakes, including air brakes, for violations of the Secretary's regulations. Tr. 14. Although Wright could not recall what model vehicle he was trained on, it was similar to the truck at issue in this proceeding. Tr. 44. Prior to working for MSHA, Wright spent 25 years in the coal mining industry and held jobs that required him to conduct maintenance, break down and rebuild mining equipment, troubleshoot and repair equipment components, and conduct pre-shift examinations when needed. Tr. 12-16.

[2] The truck was being used to water the roads at the mine. Tr. 44. Wright testified that the truck is considered a self-propelled vehicle under MSHA regulations. Tr. 69.

[3] Respondent's cross-examination of Wright included questions about the inspector's training and qualifications to inspect air brakes. Wright explained that he is trained to listen for audible air leaks when inspecting commercial motor vehicle air brake systems. Tr. 37-39. Although he could not say whether his Mine Academy training included instruction specific to Mack trucks like the one at issue, Wright confirmed that he was trained to examine, and conducted practice examinations of, similar trucks. Tr. 38-44; Ex. R-7. In response to questions about whether he made an air loss calculation, or completed a pressure threshold test, Wright explained that he is not required to do so. Tr. 61-62, 65-66.

On cross-examination Wright conceded that, although he instructed the driver to put constant and consistent pressure on the brake pedal, he could not see the driver engaging the pedal during the test. Tr. 54-55.

Wright testified that occasionally dirt accumulates around the diaphragm in air brake chambers. Tr. 35. As a result, he generally gives drivers an opportunity to pump the service brake pedal two to three times to expel any contaminates that may be in the chamber. Tr. 34-35. Although Wright testified that he gave the driver an opportunity to pump the brakes of the water truck, it is unclear whether the driver did so in this instance. Tr. 34-35. Nevertheless, according to Wright the alleged leak persisted, and the chamber did not seal. Tr. 35. In his experience, leaks only get worse over time. Tr. 34-35.

At hearing, when shown a photograph of the subject brake chamber, Wright initially could not identify the hole from which air was escaping. Tr. 56, 58; Ex. P-2. However, Wright ultimately identified the "weep hole" on the brake chamber as the location from which air was being expelled but could not explain the purpose of the hole. Tr. 60, 66. Wright explained that "usually in a situation like that, [i.e., when air is coming out of a weep hole] it's the diaphragm that's busted or damaged." Tr. 60-61.

Based on what he saw and heard, Wright issued Citation No. 9428135 to Vulcan for an alleged violation of section 56.14101(a)(3), which requires that "[a]ll braking systems installed on the equipment shall be maintained in functional condition." 30 C.F.R. § 56.14101(a)(3). Wright testified that the brake system was not being maintained in a functional condition because "the whole time that [the driver] had the foot brake pushed down, there was an audible air leak at this brake chamber."[4] Tr. 20-23,26, 36. Wright testified that he relied on MSHA's Program Policy Manual regarding section 56.14101(a)(3) when issuing the citation. Tr. 25; Ex. R-16.

The Secretary's Expert Witness

The Secretary called Jonathan Hall as an expert witness. Hall is a mechanical engineer in MSHA's Approval and Certification Center, which is part of the agency's Technical Support Division.[5] Tr. 71. In addition to providing technical support to MSHA field personnel, Hall conducts accident investigations. Tr. 72. He has conducted approximately a dozen accident investigations involving trucks with air brake systems. [6] Tr. 75. Hall testified that he is familiar

[4] Wright explained that he did not cite respondent under 56.14101(a)(1) or (a)(2) because the service brake and parking brake both held the truck on the ramp. Tr. 35-36.

[5] Hall has a Bachelor of Science degree in mechanical engineering and is a registered professional engineer in the State of West Virginia. Tr. 73. Prior to working for MSHA, Hall was an engineer responsible for testing military equipment. Tr. 72-73.

[6] Hall explained that an accident investigation is significantly more in-depth than a regular inspection because the vehicle has already been shown to have a fault or defect since it was involved in a serious or fatal accident. Tr. 101. Accident investigations, as opposed to regular inspections, often take days and involve multiple personnel, a check of both the "air side" and "mechanical side" of the brake system, the use of heavy equipment, and a review of

with air brake systems like the one on the cited truck and has received on the job training for examining air brake systems and identifying defects.[7] Tr. 75, 92.

Hall, both in his expert report and at hearing, provided an explanation of air brake system components and how they work.[8] Tr. 76; Ex. P-9. According to Hall each wheel has an air chamber or chambers, push rod, slack adjuster, S-Cam, brake pads, and brake drum. Tr. 78. Air chambers are canisters made up of two pieces of metal clamped together with an elastomeric rubberlike diaphragm inside. Tr. 78. In a dual air chamber system, like the one at issue in this case, the canister includes two chambers, one of which controls the parking brake while the other controls the service brake. Each chamber has its own diaphragm. Tr. 79. Air put into the parking brake chamber moves the diaphragm from one side of the chamber to the other in order to release the parking brake. Tr. 79-80. Air put into the service brake chamber similarly moves the service brake diaphragm from one side of the chamber to the other, which in turn causes the push rod to move. Tr. 78. The push rod rotates the slack adjuster and S-Cam and presses the brake pads against the inside of the brake drum. Tr. 78, 85. The brake pads pushing against the drum create friction and slow the rotating wheel. Tr. 78, 85.

Hall explained that there are three possible sources for air leaks in an air chamber like the one at issue in this case. Tr. 80. First, air can leak from where the metal pieces of the chamber are clamped together. Tr. 80. Second, air can leak from the hoses that provide pressurized air to the chamber. Tr. 81-82. Third, air can leak through a damaged diaphragm. Tr. 82. On cross-examination Hall explained that, generally, one determines if there is a leak by listening for it. Tr. 96. While other tests can be used to find smaller leaks, the "rule of thumb" is that if you can hear a leak then there is some sort of problem within the braking system. Tr. 96, 113.

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manufacturer's information and equipment operator manuals. Tr. 100-102, 112. Hall explained that, if a truck is still able to run following an accident, the investigation of the air brake system begins by conducting a pressure-holding test. Tr. 93. The pressure-holding test involves releasing the parking brake, allowing air to build up in the system until the compressor shuts off, and then holding down the service brake pedal to determine how much the pressure drops over a period of time. Tr. 106. The rate at which pressure is lost is then compared against the equipment manufacturer's allowable air pressure loss rate to determine whether the system is losing pressure too fast and requires necessary repair. Tr. 93-94, 106, 107. Hall explained that, while the test verifies whether the air system can hold the necessary pressure, it does not determine whether the "wheel end" portion of the system is properly adjusted and can apply needed pressure to the wheel itself, nor does it necessarily show whether there is an air leak. Tr. 95, 107. To illustrate, Hall explained that you can have a small air leak that does not show up during the pressure-holding test and may not require the truck to be taken out of service immediately, but nevertheless still creates a problem. Tr. 95-96.

[7] Hall's on the job training included assembly, disassembly, testing and measuring of equipment components of trucks that were involved in accidents. Tr. 92-93.

[8] Prior to hearing Hall prepared an expert report that explained, generally, what truck air brakes are, how they work, the components of an air chamber, and problems that can be caused by air leaks in air brake systems. Tr. 76; Ex. P-9.

Hall was not present at the time the citation was issued and did not examine the equipment. However, he reviewed the citation and was present during Wright's testimony. Based on the data provided, Hall believed the most likely source of the alleged leak was a damaged diaphragm. Tr. 81-82, 86. Hall explained that diaphragms move every time the brake is applied and released. Tr. 82. Diaphragms wear out over time and eventually start to develop tears. Tr. 82, 89. In addition, dirt that gets into the chamber through the weep hole can cause an abrasion and, over time, create a hole or tear in the diaphragm. Tr. 82.

Hall explained that the weep hole allows air to exit the chamber when the diaphragm moves from one side to the other.[9] Tr. 83. Each time the brakes are applied or released the diaphragm moves from one side of the chamber to the other and there should be a brief, momentary movement of air through the weep hole. Tr. 82, 109, 111. When the brake is applied the chamber becomes pressurized, the diaphragm moves from one side to the other and air is expelled from the weep hole. Tr. 83, 109. When the brake is released air travels the other way through the weep hole. Tr. 83, 109-110. On cross-examination Hall agreed that any fluctuation in the treadle actuated by the brake pedal, will cause the system to exhaust air. Tr. 112, 114.

According to Hall, air brake systems are designed and intended to be airtight and there should never be a continuous release of air from an air brake chamber or air brake system. Tr. 83, 88, 107. Air brake systems are "designed to work with a certain given air pressure at a certain amount of energy." Tr. 80, 83, 88. An air leak removes energy from the system and prevents it from working the way it was designed and intended to work. Tr. 80, 83, 88-89. Here, according to Hall, the continuous air leak was a defect, or shortcoming of the air brake system. Tr. 86. Continuous air leaks do not go away and, in Hall's opinion, only get worse over time. Tr. 87, 89-90.

Vulcan's Expert Witness

Marty Rolfe was Vulcan's sole witness and testified as an expert. Rolfe has a degree in occupational safety and health from Columbia Southern University, currently works in Vulcan's safety and health department, and serves as the DOT representative for the company's southeast division.[10] Tr. 118-119; Ex. R-24 p. 312. His responsibilities include, among other things, maintaining Vulcan's commercial motor vehicle ("CMV") inspection schedule and regulatory qualification files for all company personnel who conduct air brake inspections and conducting risk investigations on vehicles that travel between mine sites. Tr. 119. Rolfe has 19 years of

[9] In this instance the brake chamber is mounted vertically on the truck, so the diaphragm moves up and down, but the operation of the chamber is the same. Tr. 141.

[10] Prior to working for Vulcan, Rolfe held several positions in which he was responsible for addressing issues related to regulatory compliance of commercial motor vehicles. Tr. 120-122; Ex. R-23.

experience as a certified CMV air brake inspector[11] and specializes in the application and enforcement of regulations under Title 49 C.F.R. Parts 40 and 300-399.[12]

Rolfe testified that a threshold pressure test is the first step of any air brake inspection. Tr. 126, 134. The threshold pressure test is an industry standard test which enables an air brake inspector to calculate an air loss rate for the brake system.[13] Tr. 126, 135. The air loss rate is then compared to an allowable air loss rate to determine if the air system is functioning or the vehicle needs to be taken out of service.[14] Tr. 126-127, 134, 136. According to Rolfe, the threshold pressure test determines if there is a leak you need to find and correct. Tr. 126-127.

While Rolfe agreed that there should not be a continuous air leak from a brake chamber while the brake pedal is engaged, he explained that what sounds like an air leak may be the normal operation of the air brake system rather than the result of a defective leak. Tr. 130, 154-155. Air systems are not completely airtight and have multiple exhaust ports and ways to vent air in order to protect the system and ensure proper operation. Tr. 130, 138-139. According to Rolfe, if a leak is audible then the system will fail the threshold pressure test. Tr. 135. Moreover, the threshold pressure test will tell you if a leak exists or if the system is still settling and exhausting by design. Tr. 144.

Although Rolfe was not present at the time Wright inspected the truck and did not witness the alleged leak, he did have an opportunity to inspect the truck at issue.[15] Tr. 136, 153-154. Rolfe agreed that the alleged defect was at the weep hole. Tr. 133-134. He explained that a weep hole allows air to escape from a brake chamber when the diaphragm moves forward, thereby preventing pressure buildup that would prevent necessary movement of the diaphragm. Tr. 138-140, 142. While Rolfe generally agreed with Hall's testimony regarding how air brake

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[11] Rolfe is certified to inspect CMVs through both North American Standard and the FMCSA. Tr. 116; Ex. R-24. He testified that additional knowledge, training and experience requirements must be met to qualify as a CMV air brake inspector. Tr. 117.

[12] Rolfe testified that 49 C.F.R. contains the "only governmental regulations that exist" when inspecting a CMV. Tr. 131. These are regulations issued by the Department of Transportation.

[13] The threshold pressure test is conducted from the seat of the truck. Tr. 135. The person conducting the test watches the air brake system gauge to determine the drop in system pressure, calculated in PSI, over the course of one minute. Tr. 136. I note that this test, as described by Rolfe, seems to be the same as the "pressure-holding test" described by Hall and utilized during MSHA accident investigations.

[14] The allowable air loss rate is set by the manufacturer. Tr. 126. Most manufacturers follow an industry standard. Tr. 126.

[15] At hearing, when presented with a picture of the chamber at issue, Rolfe easily identified it as a "Clamp Type 30 brake chamber in the vertical position" with a "standard type stroke chamber," and provided a detailed explanation of the various parts of the chamber. Tr. 141-143; Ex. R-1 p. 6.

systems and air brake chambers work,[16] he took issue with Hall's explanation of how long air may vent from a weep hole. Tr. 134. Specifically, he stated that "because you can't see the diaphragm - it's an internal piece of a component … - you can't determine how much air or how long it's going to vent. … You have to allow for the settling of all those components because you don't know how fast those diaphragms are going to move forward." Tr. 134. Further, he explained that any fluctuation in the treadle valve will release air from the weep hole. Tr. 140.

Rolfe opined that, had the diaphragm been "busted" as Wright alleged, there would have been no question about it and, given that there was 100 to 120 PSI on the pressurized side of the diaphragm, there would have been a "trumpet" sound coming from the chamber, which there was not. Tr. 143-144; Ex. R-5. p. 23.

Citation No. 9428135

Citation No. 9428135, issued under section 104(a) of the Mine Act on September 18, 2019, alleges a violation of Section 56.14101(a)(3) of the Secretary's safety standards. The Condition or Practice section of the citation states as follows:

> The braking system on the in use Mack water truck, Co. 66039, located at water tank fill up, is not being maintained in a functional condition. When tested the right rear tandem brake chamber has an audible air leak present when the brake paddle is engaged. The truck is used multiple times throughout the day to water mines roads. Employees working in and around this equipment were exposed to the possibility of injury, if the brakes were to fail. The truck passed a brake test, making the chance of an accident unlikely.

Inspector Tommy Wright determined that an injury was unlikely to be sustained, but that if an injury were sustained it could reasonably be expected to result in lost workdays or restricted duty. Wright further determined that the cited condition was not S&S, affected one person, and was the result of Respondent's low negligence. The Secretary proposed a penalty of $121.00 for this alleged violation. Vulcan replaced the brake chamber to abate the citation.

Fact of Violation

Brief Summary of the Parties' Arguments

The Secretary argues that Vulcan violated the cited standard because an audible air leak from the brake chamber indicated that the air brake system was not being maintained in a functional condition. Sec'y Br. 9. The Secretary cites the Commission's decision in *Daanen v. Janssen*, 20 FMSHRC 189 (Mar. 1998) and argues that a violation of 56.14103(a)(3) exists when a component of a braking system is not maintained in the functional condition. Sec'y Br. 12-14. The brake chamber was a component of the braking system. According to the Secretary the

[16] Rolfe explained that the service brake chamber is where pneumatic energy is turned in to mechanical energy. Tr. 142.

continuous air leak from the chamber indicated a defect in the chamber and that the brake system was not being maintained in a functional condition. *Id*. at 9-10.

Vulcan asserts that the citation should be vacated because the issuing inspector lacked the knowledge, training and education necessary to conduct a proper air brake inspection and failed to conduct a proper inspection in this instance.[17] Vulcan Br. 1-8. Moreover, Respondent argues that air brake systems are designed to exhaust air from the location where the alleged leak was observed and that the test, as administered by the inspector, did not establish that there was a defect in the system. Vulcan Br. 9-10.

Discussion

Section 56.14101(a)(3) requires that "[a]ll braking systems installed on the equipment shall be maintained in functional condition." 30 C.F.R. § 56.14101(a)(3). The Commission's decision in *Daanen & Janssen*, 20 FMSHRC 189 (Mar. 1998) is controlling in cases involving citations issued for alleged violations of section 56.14101(a)(3).

In *Daanen* the Commission concluded that section 56.14103(a)(3) was ambiguous because it supported "at least two plausible and divergent interpretations."[18] *Id*. at 192. There the Secretary submitted an interpretation of the standard that "mandates a finding of violation when a component of the braking system is not maintained in functional condition, regardless whether the braking system is capable of stopping and holding the vehicle." *Id*. In finding that the Secretary's interpretation was reasonable and entitled to deference the Commission cited four specific reasons.

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[17] Respondent primarily argues that the water truck was a commercial motor vehicle subject to DOT regulations, and that the inspector failed to have the "minimal qualifications" necessary to conduct a proper air brake inspection under those regulations. Vulcan Br. 1-6. However, Respondent cites no authority for the proposition that MSHA has either incorporated DOT standards in its enforcement scheme, or that DOT regulations in any way preempt MSHA's mandatory safety standards. Absent specific authority on these issues, I reject Respondent's arguments regarding the applicability of DOT regulations to the case at hand. *See Williams Natural Gas Company*, 19 FMSHRC 1863, 1869 (Dec. 1997) (Discussing lack of specific authority regarding DOT preemption of regulations promulgated under the Mine Act). Moreover, although Wright may have lacked the knowledge, training and education to be a DOT certified air brake inspector, I find that nothing in the record suggests that he was not an authorized representative of the Secretary qualified to conduct inspections and issue enforcement actions for violations of mine safety and health standards including section 56.14101(a).

[18] The Secretary, in his brief, mistakenly states that the "Commission found that the language of . . . [the subject standard] *was not ambiguous* because the Secretary's interpretation was reasonable as it is consistent with the language of the regulation." Sec'y Br .13 (emphasis added). In fact, the Commission in *Daanen* found that the language subject standard *was ambiguous* before turning to the question of whether the Secretary's interpretation was reasonable and entitled to deference. 20 FMSHRC at 192-193.

First, the Commission found that the Secretary's interpretation was consistent with the language of the standard. The standard's use of the term "system" contemplated an "interrelationship of component parts." *Id*. at 193. As a result, the Commission determined that for a braking system "to be considered functional, each of its component parts must be functional." *Id*.

Second, the Secretary's interpretation was consistent with the Mine Act's goal of promoting miner safety. *Id*. The Commission reasoned that "[b]y allowing a citation to issue before the entire braking system fails, the Secretary's interpretation is preventive and seeks to cure equipment defects before serious accident occur." *Id*.

Third, the Commission found that the Secretary had consistently applied the proffered interpretation. *Id*. at 194. The Secretary's Program Policy Manual explicitly states that a citation should be issued under the standard "if a component or portion of any braking system on the equipment is not maintained in functional condition even though the braking system is in compliance with" subsections (1) and (2) of 56.14101(a). *Id*.

Finally, the Commission stated that the Secretary's "interpretation gives independent meaning to each part: subsection (1) is a [service brake] performance standard, while subsection (3) is a maintenance standard." *Id*. The Commission noted that if a citation could only be issued under subsection (3) when the braking system failed to stop and hold equipment, then there would be no difference between the two subsections. *Id*.

Consistent with the Commission's holding in *Daanen*, I find that in order to establish a violation of section 56.14101(a)(3) the Secretary must prove that a component of the air brake system on the water truck was not maintained in a functional condition, regardless whether the braking system was capable of stopping and holding the vehicle.[19,20]

For reasons set forth below I find that while the air brake chamber on the water truck is a component of the braking system, the Secretary failed to prove by a preponderance of the

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[19] Respondent contends that *Daanen* is inapplicable to the case at hand. Vulcan Br. 5. I disagree. Respondent's argument rests entirely on factual differences between the two cases. *Id*. While the facts of the two cases are not identical, the Commission in *Daanen* made clear that the Secretary's interpretation of the standard was reasonable, and that a violation will be proven if the Secretary can establish that a component of a braking system is not maintained in a functional condition.

[20] Much of Respondent's evidence was presented as if the Secretary were charging Respondent with a violation of section 56.14101(a)(1) or (a)(2), i.e., for failing to pass the parking brake or service brake performance tests. However, Wright testified that the truck passed both performance tests and, as a result, issued the citation for an alleged violation of 56.14101(a)(3) pursuant to the guidance in MSHA's Program Policy Manual. In *Daanen* the Commission endorsed this approach by citing the Program Policy Manual as support for the Secretary's consistent application of the standard. 20 FMSHRC at 194.

evidence[21] that the chamber and, in turn, the brake system, was not being maintained in a functional condition.

I find that the air brake chamber is a critical component of the braking system on the water truck, which is clearly self-propelled mobile equipment. This fact was not disputed by the parties. Consequently, the air brake chamber must be maintained in functional condition for the truck's braking system to be considered functional. *See Daanen* at 193.

I find that the Secretary failed to establish that the air brake chamber was not being maintained in a functional condition. I credit Wright's testimony that he heard and felt air being expelled from the weep hole. However, I find that the Secretary failed to prove by a preponderance of the evidence that the air brake chamber and, in turn, the air brake system, was not being maintained in a functional conduction. In reaching this conclusion I have relied on four critical pieces of evidence.

First, both expert witnesses agreed that a weep hole's purpose is to exhaust air from the air brake chamber during normal operation. Accordingly, observing air being expelled from a weep hole does not by itself establish that a chamber is not being maintained in a functional condition.[22] In order to prove a violation in this instance the Secretary also must establish that a defect, or shortcoming, in the chamber was the source of the air Wright observed being expelled from the weep hole.

Second, neither of the Secretary's witnesses could identify the source of the air being expelled from the weep hole with any level of the certainty. While both Wright and Hall posited that a damaged diaphragm was the likely source of the alleged leak, their testimony on this point was almost entirely speculative. Neither Wright nor Hall viewed the diaphragm or saw any damage to the diaphragm.[23] Rather, in reaching their conclusion that the diaphragm was likely

[21] The Secretary bears the burden of proving a violation by a "preponderance of the evidence." *RAG Cumberland Resources Corp.*, 22 FMSHRC 1066, 1070 (Sept. 2000). In order to satisfy this burden, the Secretary must convince the court that the existence of a fact is more probable than not. *Id*. Under certain circumstances the Secretary may establish a violation by inference, but only when the inference is inherently reasonable and there is a rational connection between the evidentiary facts and the conclusion inferred. *Mid-Continent Resources*, 6 FMSHRC 1132, 1138 (May 1984). "If the Secretary fails to meet this burden then there is no violation, irrespective of any counterarguments." *Sims Crane*, 41 FMSHRC 393, 396 (July 2019).

[22] The Secretary, in his brief, cites *Grace Pacific Corp*., 35 FMSHRC 3722 (Dec. 2013) (ALJ) and seemingly argues that an audible air leak by itself evidences an equipment defect. Sec'y Br. 15. However, the inspector in *Grace Pacific* both heard an audible air leak and calculated an air loss rate. *Id*. at 3273. Moreover, there the ALJ relied at least in part on the air loss rate calculation in finding that a violation existed. *Id*. at 3274 ("Given that the psi was lower than the acceptable level, leaving the brakes ineffective, I find that the brakes were not maintained in functional condition and a violation has been shown.").

[23] Hall, who offered the more substantive testimony on this topic, was not present at the time of the inspection, did not hear the alleged air leak, and never examined the subject brake chamber.

damaged, they relied almost exclusively on Wright's observation that there was a "continuous" release of air from the weep hole, which, according to them, indicated a leak. However, Wright offered very little context as to what he meant by stating that the release was "continuous."[24] While Wright and Hall testified that air should exhaust from the weep hole for only a brief moment when the brake is depressed before the diaphragm seals, Rolfe offered testimony disputing that fact. According to Rolfe, who unlike Secretary's expert had an opportunity to examine the truck after the citation issued, it is impossible to determine how long air will vent from a weep hole. He explained that air brake chamber diaphragms are internal components that cannot be seen. As a result, it is impossible to tell how fast a diaphragm is moving or how long air will vent from a weep hole. I find Rolfe's testimony on this issue to be both compelling and credible. While his testimony does not conclusively establish that the air brake chamber was being maintained in a functional condition, it does provide a credible alternative explanation for why the chamber did not seal as fast as Wright may have expected.

Third, both experts agreed that any fluctuation in the brake pedal could release air from the system.[25] Therefore it is critical that there be no fluctuation of the brake pedal during a test which seeks to discover whether there are leaks in the air brake system. Otherwise air being properly expelled from the system could be mistaken for a leak. For reasons that follow, I find that the Secretary failed to establish that during the test administered by Wright there was no fluctuation in the brake pedal that controls the treadle valve.

Fourth, it is unclear how the truck driver depressed the service brake pedal during the test. While I credit Wright's testimony that he instructed the driver to maintain constant and consistent pressure on the brake pedal during the test, it is unclear whether the brake was applied in such a way. Wright agreed that he was unable to observe the driver during the test. Moreover, the record is devoid of evidence that after he heard air being expelled from the weep hole Wright asked the driver whether he continuously depressed the pedal as instructed. [26] Given

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[24] Outside of statements that air was expelled from the chamber the entire time the brake pedal was depressed, Wright offered little context as to what he meant by saying that the alleged leak was "continuous" or "constant." Notably, he did not testify to the duration of time that the brake pedal was depressed.

[25] Although neither party offered a detailed explanation of the treadle valve, the court understands that the treadle valve is connected to the service brake foot pedal and controls the amount of air pressure delivered to the brake chamber. As a result, fluctuations in pressure to the brake pedal necessarily means that air is moving through the treadle valve to the brake chamber.

[26] Indeed, Wright left open the possibility that the brake pedal was not fully depressed during the entire test. When Wright was asked on cross whether he knew for a fact that the driver applied consistent pressure to the brake pedal, he responded by saying that "if he didn't [apply consistent pressure], that would be [Vulcan's] people not doing as they was (sic) asked." Tr. 55. However, it is the Secretary's burden at hearing to prove every element of the violation by a preponderance of the evidence. While it is unclear what happened in this instance, an inspector's testimony that he gave someone an instruction does not conclusively establish that the instruction was followed. Similarly, failure to follow the instruction of an inspector does not prevent an operator from challenging whether the Secretary has met his burden.

that any fluctuation in the brake pedal would send air through the treadle valve to the brake chamber, it was critical that the test administered by Wright be carried out in a very specific way in order to ensure that air being correctly expelled from the system would not be mistaken for a leak. Here, I find that the Secretary's evidence is lacking with respect to how the brake pedal was depressed during the test and the evidence suggests that another plausible alternative explanation exists for why air was being expelled from the weep hole.

Given the above analysis, I find that the Secretary failed to establish by a preponderance of the evidence that the air expelled from the weep hole indicated that the brake chamber and, in turn, the brake system, was not being maintained in a functional condition. Rolfe's testimony regarding the inability to determine how long it may take for a properly functioning chamber to exhaust air from weep hole, the lack of more conclusive evidence regarding the source of the leak, and the failure to ensure that the test was properly administered by Wright all prevent me from making the inferential jump the Secretary's evidence requires to uphold the citation.

It is important that the parties recognize that that I am not finding that Respondent was in compliance with the cited standard. Rather, I find only that the Secretary failed to meet his burden of establishing the violation by a preponderance of the evidence. In reaching this conclusion I have not based my decision on the inspector's alleged lack of training to conduct DOT inspections of commercial motor vehicles or his alleged failure to conduct the brake tests suggested by Vulcan. Consequently, the citation is vacated.

III. ORDER

For reasons set forth above, Citation No. 9428135 is **VACATED**.

Richard W. Manning
Administrative Law Judge

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