FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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March 5, 2026

SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA) v. CARGILL INCORPORATED	Docket Nos. LAKE 2022-0285 LAKE 2023-0013

BEFORE: Rajkovich, Chair; Jordan, Baker, and Marvit, Commissioners

DECISION

BY THE COMMISSION:

These consolidated contest and civil penalty proceedings arise under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq. (2024) ("Mine Act"). Citation No. 9669536 was issued to Cargill, Inc. ("Cargill") at its Cleveland Mine by the Department of Labor's Mine Safety and Health Administration ("MSHA"). The citation alleged that Cargill failed to maintain a secondary escapeway in safe travelable condition because the escapeway contained excessive levels of nitrogen dioxide ("NO_2") in violation of 30 C.F.R. § 57.11051(a) (which provides in part that "[e]scape routes shall be . . . maintained in safe, travelable condition"). MSHA designated the violation as significant and substantial ("S&S")[1] and proposed a civil penalty of $774. Sec'y Ex. 1- 2.

Cargill contested the citation and the proposed civil penalty before the Commission. After a hearing on the merits, a Commission Administrative Law Judge issued a decision vacating the citation and determining that the operator did not violate section 57.11051(a). 46 FMSHRC 667 (Aug. 2024) (ALJ). The Judge rejected the Secretary's position that concentrations of NO_2 above 5 ppm rendered the escapeway unsafe in violation of the standard. The Judge further found that even if the Secretary's interpretation of the safety standard deserved deference, the operator lacked appropriate notice of that interpretation. The Secretary petitioned the Commission for review, claiming that the Judge's determination that there was no violation was not supported by substantial evidence, and that the Judge's holding of lack of notice was legally incorrect. PDR at 8, 16.

[1] The S&S terminology is taken from section 104(d)(1) of the Act, which distinguishes as more serious any violation that "could significantly and substantially contribute to the cause and effect of a … mine safety or health hazard." 30 U.S.C. § 814(d)(1).

We hold that the operator violated section 57.11051(a) because the secondary escapeway was not maintained in safe condition. We further conclude that the operator was provided adequate notice of the requirements of the standard. As established herein, the operator should have been aware that exceeding the 5-ppm limit for NO_2 would render the secondary escapeway unsafe in violation of section 57.11051(a). Therefore, we reverse the Judge's decision, affirm Citation No. 9669536, and remand for further findings consistent with this decision.

I.

Factual and Procedural Background

A. Factual Background

The Cleveland Mine is a large underground salt mine that produces road salt products. Miners work one of three shifts in the morning, afternoon, or night. The operator uses a mixture of ammonium nitrate and fuel oil to blast sections of the face to loosen the salt. Miners collect the loosened salt, and a conveyor belt carries the salt to an underground mill where it is crushed before it is sent to the surface. A common byproduct of the aforementioned blasting is the release of nitrogen dioxide, or NO_2, a reddish-brown gas that can harm miners at certain concentrations. 46 FMSHRC at 669; Tr. 36-37, 80, 281, 681, 902-03.

On July 26, 2022, MSHA Inspector Marty Morris, accompanied by Jason Wood, the operator's safety specialist, inspected the underground area of the mine during the third shift. 46 FMSHRC at 671; Tr. 31, 62, 77. Earlier in the evening, blasting had occurred at the working face at units 41 and 42. Tr. 42. At those units, there was a primary escapeway containing intake air, and a secondary escapeway containing return air.[2] Sec'y Exs. 1 at 1, 3 at 2-3; Tr. at 40-41, 156, 727. Miners used the escapeways to evacuate the mine during emergencies such as a mine fire. Tr. 59-61, 64. The NO_2 generated by the operator's blasting at Units 41 and 42 travelled south along the return air route of the secondary escapeway. As it travelled south, the concentration of NO_2 decreased as the gas diffused through the mine. Tr. 45-49, 51, 977.

Between July 26 and July 27, 2022, Inspector Morris and Safety Specialist Wood took NO_2 readings at three points along the secondary escapeway. Tr. 45, 52. Inspector Morris travelled south after each reading because travelling north, where the NO_2 had not yet been diffused, would have exposed him to higher NO_2 concentrations. Tr. 51. At the first point, the inspector's meter measured 10.3 ppm of NO_2 while Wood's meter measured 8.2 ppm. Tr. 47-48. At the second and third points, the inspector's meter measured above 6 ppm and 4.2 ppm of NO_2 respectively, while Wood's meter measured 5 ppm and close to 4.2 ppm of NO_2. Tr. 52-53, 55. The operator's own policies prohibit miners from working in an area which has a concentration of NO_2 greater than 5 ppm. Tr. 689-90, 770-74, 857. An operator's employee conceded that

[2] An "intake" is any underground roadway/airway through which fresh air is conducted to the working face. *Intake*, DICTIONARY OF MINING, MINERALS AND RELATED TERMS (2d ed. 1997) ("DMMRT"). A "return" is any airway which carries the ventilating air outby (*i.e.*, out of the mine). *Return*, DMMRT at 919.

such a concentration of NO_2 would be unsafe for miners not wearing respirators while travelling through the secondary escapeway. Tr. 893-94.

On August 5, Inspector Morris issued Citation No. 9669536 for a violation of 30 C.F.R. § 57.11051(a). Sec'y Ex. at 1 at 1. Specifically, the citation alleged that the "secondary escapeway . . . was not properly maintained in a safe . . . condition. . . [t]he post-blast gas readings . . . indicated [concentrations of NO_2] up to 8.2 ppm along the [secondary escapeway] . . . . Continued exposure to elevated levels of NO_2 . . . would likely lead to injury." *Id*. The inspector required that miners be "removed from the portions of the mine where [NO_2] would prevent them from working." *Id.* In order to comply with the regulation, the operator relocated the secondary escapeway from the return air course to an intake air course parallel to the primary escapeway. Tr. 816, 860-62, 1108; 46 FMSHRC at 675.

B. The Judge's Decision

The Judge vacated Citation No. 9669536, rejecting the Secretary's reliance on the exposure limit for NO_2 set forth in 30 C.F.R. § 57.5001(c) to support her assertion that any concentration of NO_2 above 5 ppm would render the escapeway unsafe. 46 FMSHRC at 695-98. Rather, the Judge concluded that a minimum concentration of NO_2 at or above 15 ppm would be necessary to render the secondary escapeway unsafe. *Id*. at 708 (relying on the American Industrial Hygiene Association's ("AIHA") recommendation of 15 ppm of NO_2 as "the maximum airborne concentration all individuals could be exposed to for 1 hour without developing irreversible or other serious health effects"). Reasoning that NO_2 concentrations under 15 ppm would not impair miners' ability to evacuate the mine, the Judge determined that the operator did not violate section 57.11051(a) because the operator was cited for 8.2 ppm.[3] *Id*. at 667-709. Moreover, the Judge found that the respirators[4] used by the operator would render the escapeway safe under 30 C.F.R. § 57.5005. *Id.* at 702. The Judge also determined that, in any event, he would have found that the operator lacked notice of the Secretary's interpretation of a 5 ppm limit for NO_2 in escapeways. *Id.* at 708 n.32.

On appeal, the Secretary claims that the Judge's decision that the secondary escapeway was safe is not supported by substantial evidence. PDR at 8. However, she also makes a legal challenge, asserting that "the way the judge reached the conclusion that NO_2 under 15 ppm renders an escapeway 'safe' ignores the weight of the evidence. . . as well as the regulatory purpose of section 57.11051(a)." *Id.* at 12.

[3] The Judge found that "[t]here is no evidence in the record beyond Dr. Schaper's testimony that exposure to 5 ppm NO_2, over the comparatively shorter period of a mine evacuation, would impair a miner's escape." 46 FMSHRC at 698.

[4] The operator uses Ocenco EBA 6.5 self-contained self-rescuers which protect miners from hazardous concentrations of NO_2 by providing a fixed amount of oxygen to miners. 46 FMSHRC at 674; Sec'y Ex. 9 at 6 (illustration of Ocenco respirator).

II.

Regulatory Background

While the operator was cited for a violation of 30 C.F.R. § 57.11051(a), the Secretary and the Judge also discussed two other regulations, 30 C.F.R. §§ 57.5001 and 57.5005. 46 FMSHRC at 692, 698.

Section 57.5001(a) provides the threshold limit for airborne contaminants adopted by the American Conference of Government Industrial Hygienists ("ACIGH") as set forth in the Conference's 1973 publication. Importantly, NO_2 was given a ceiling designation by ACIGH in 1973 of 5 ppm. *Id*. at 677; Sec'y Ex. 8 at 6. Section 57.5001(c) provides that employees shall be withdrawn from areas when the concentration exceeds this limit.

Section 57.5005 serves as a narrow exception to the exposure limits of section 57.5001. It provides that "when necessary by the nature of work involved [such as] occasional entry into hazardous atmospheres to perform maintenance or investigation, employees may work for reasonable periods of time in concentrations of airborne contaminants exceeding permissible levels *if they are protected by appropriate respiratory protective equipment*." 30 C.F.R. § 57.5005 (emphasis added).

III.

Disposition

A. The Judge Erred When Interpreting the Term "Safe" in Section 57.11051.

Section 57.11051 does not define "safe" or "travelable," and does not provide any examples of unsafe or non-travelable conditions. Instead, the regulation simply provides that "[e]scape routes shall be . . . maintained in safe travelable condition." 30 C.F.R. § 57.11051. Therefore, the regulation is facially unclear as to whether airborne contaminants could render an escapeway unsafe or not travelable.[5]

Broadly worded mandatory safety standards are interpreted by the Commission in accordance with a reasonably prudent person test. *See Sunbelt Rentals, Inc.,* 38 FMSHRC 1619, 1626 (July 2016). As section 57.11051(a) does not define or provide examples of "unsafe" conditions, the regulation is "drafted in general terms in order to be *broadly* adaptable to the

[5] On appeal, the operator implies that the regulation might be interpreted only to require that there be no physical obstacles, such as a fallen rock, in the escapeway. Cargill's Resp. Br. at 22. Section 57.11051 requires that an escapeway be maintained in both "safe" and "travelable" condition. 30 C.F.R. § 57.11051. However, if both safe and travelable simply mean an absence of physical obstacles, then "safe" would appear to become superfluous next to travelable. We also note our precedent holding that "a fundamental rule of construction is that effect must be given to every part of a . . . regulation, so that no part will be meaningless." *Daanen & Janssen, Inc.,* 20 FMSHRC 189, 193 (Mar. 1998).

varying circumstances of a mine." *Id.* at 1627 (emphasis added), *quoting FMC Wyoming Corp.*, 11 FMSHRC 1662, 1629 (Sept. 1989). Thus, the regulation's reference to safe conditions is appropriately considered under the reasonably prudent person test.[6] The test provides that an "alleged violation is appropriately measured against whether a reasonably prudent person, familiar with the factual circumstances surrounding the allegedly hazardous condition, including any facts peculiar to the mining industry, would recognize a hazard warranting correction within the purview of the applicable standard." 38 FMSHRC at 1626.

First, we must consider whether the term "safe" encompasses a requirement to avoid excessive airborne contaminants in an escapeway. Importantly, other mine safety standards specifically limit a miner's exposure to airborne contaminants such as NO_2 to ensure healthful working conditions. *See* 30 C.F.R. §§ 57.5001, 57.5005. In fact, Inspector Morris testified that in other mines, miners do not work underground immediately after blasting so that they are protected from NO_2. Tr. 27-28, 175. Therefore, a reasonable operator would interpret the term "safe" in section 57.11051 as encompassing a requirement to avoid excessive NO_2, an airborne contaminant and potential hazard in an escapeway.

Second, we must consider what types of adverse health effects in escapeways are inconsistent with the term "safe," and the minimum concentration of NO_2 which would cause such effects. The Judge recognized that "the requirement that an escapeway be 'maintained in safe, travelable condition' is 'genuinely ambiguous' with respect to the specific levels of airborne contaminants that may be present in the escapeway, at least with respect to NO_2." 46 FMSHRC at 689. However, the Judge improperly interpreted "safe" to permit NO_2 amounts that are harmful even though they would not cause *immediately observabl*e health effects. The Judge found that immediately observable health effects occur at NO_2 concentrations 15 ppm or above. 46 FMSHRC at 698, 708. Section 57.11051 makes no distinction between short-term and long-term harm, or more serious and less serious harm. 30 C.F.R. § 57.11051. A reasonably prudent miner would interpret "safe" as protecting against adverse health effects resulting from a miner's exposure to excessive NO_2, even if such harmful effects were not immediately observable or did not result in the total incapacitation of the miner.

We conclude that the Judge's interpretation—that an escapeway remains in safe condition provided that the NO_2 concentration does not risk irreversible or other serious health effects—is an erroneous interpretation of the standard. The standard requires that for an escapeway to be safe it must be free of NO_2 levels that would cause harm.

[6] In *Ideal Cement Company*, 13 FMSHRC 1346, 1350-51 (Sept. 1991), we applied the reasonably prudent person test to the phrase "affecting safety." We note that the Dictionary of Mining, Minerals and Related Terms uses terminology similar to the Commission's reasonably prudent miner test, defining "safe" as "in general use among employers of ordinary caution and prudence in the same line of business under the same circumstances." *Safe*, DMMRT at 953 (defining safe in the context of safe appliances); *see also Mach Mining, LLC*, 40 FMSHRC 1, 11 (Jan. 2018). The DMMRT, while not always dispositive, is a "recognized authority for [technical] usage." *Wolf Run Mining Co.,* 32 FMSHRC 1669, 1685 (Dec. 2010).

B. The Judge Erred When Determining that the Secretary Failed to Demonstrate that the Secondary Escapeway Was Not Safe.

When reviewing a Judge's factual determinations, the Commission is bound by the terms of the Mine Act to apply the substantial evidence test. 30 U.S.C. § 823(d)(2)(A)(ii)(I). "Substantial evidence" means "'such relevant evidence as a reasonable mind might accept as adequate to support [the Judge's] conclusion.'" *Rochester & Pittsburgh Coal Co.,* 11 FMSHRC 2159, 2163 (Nov. 1989) (quoting *Consolidated Edison Co. v. NLRB,* 305 U.S. 197, 229 (1938)).

As the Judge recognized, the parties did not dispute that, between July 26 and July 27, 2022, the night of the inspection, the existing concentrations of NO_2 were as high as 8.2 ppm in at least one part of the secondary escapeway. Tr. 700-01; Sec'y Ex. 1; 46 FMSHRC at 677. Substantial evidence does not support the Judge's finding that exposure to 8.2 ppm of NO_2 is safe and without resultant harm.

Instead, there is ample evidence in the record that such exposure could result in adverse health effects. Dr. Michelle Schaper, an MSHA toxicologist, documented that "[t]here are serious health-related effects of inhalation exposure to NO_2, at and above . . . 5 ppm." Sec'y Ex. 8 at 7.[7] She testified that a miner could encounter sensory irritations including burning and tearing of his eyes, nose, and throat, and choking. She also testified that NO_2 could affect the deepest part of the lung, causing fluid to move into the lungs, *i.e.,* pulmonary edema. Tr. 498-99. In discussing Dr. Schaper's testimony, the Judge erroneously focused on when adverse health effects would impair escape. *See* 46 FMSHRC at 698 ("There is no evidence . . . beyond Dr. Schaper's testimony[8] that exposure to 5 ppm [of] NO_2, over the comparatively shorter period of a mine evacuation, would *impair a miner's escape.*" (emphasis added)). Notably, walking through the escapeway could take an hour to an hour and a half, exposing miners to NO_2 for long periods. It can take 15 to 45 minutes to drive through the escapeway to the exit.

Dr. Schaper's testimony demonstrates that during the MSHA inspection, the concentration of 8.2 ppm of NO_2 would result in some adverse health effects to a miner, even if these effects were not immediately observable and the miner was ultimately able to evacuate the mine. This factual testimony is consistent with the ceiling limit of 5 ppm of NO_2 in a mine, adopted by MSHA. In summation, the record compels the conclusion that the secondary escapeway, during the MSHA inspection, contained an unsafe concentration of NO_2.

[7] Similarly, in response to a question asking "what [will be the] effects [of being] exposed to NO_2 levels above 5 ppm," Dr. Schaper testified that "over 5 ppm . . . that's where you can start to see these [sensory and pulmonary] effects." Tr. at 497-99.

[8] We note that the ALJ provided no explanation for his decision to discredit Dr. Schaper's testimony nor did he cite to any countervailing evidence that undermined her testimony. As noted *infra*, Dr. Schaper's testimony was consistent with the ACGIH determination.

C. The Secretary's Mandatory Safety Standards Do Not Permit Reliance on Personal Protective Devices to Render the Escapeway Safe.

The Secretary's regulations provide a narrow exception to the exposure limits. Section 57.5001 provides that the limits apply "[e]xcept as permitted by § 57.5005," which in turn states that:

> Control of employee exposure to harmful airborne contaminants shall be, insofar as feasible, by prevention of contamination, removal by exhaust ventilation, or by dilution with uncontaminated air. Where accepted engineering control measures have not been developed or when necessary by the nature of work involved (for example, while establishing controls or occasional entry into hazardous atmospheres to perform maintenance or investigation), employees may work for reasonable periods of time in concentrations of airborne contaminants exceeding permissible levels if they are protected by appropriate respiratory protective equipment.

30 C.F.R. § 57.5005. We note that the very terms of the exception indicate that the presence of airborne contaminants constitute hazardous conditions. Respirators would not be necessary in an area where there were no hazards. As a result, the language of the exception belies the operator's argument that the escapeway could be considered safe while having high levels of airborne contaminants.

Where the language of a regulatory provision is clear, the terms of that provision must be enforced as they are written unless the regulator clearly intended the words to have a different meaning or unless such a meaning would lead to absurd results. *See Dyer v. United States*, 832 F.2d 1062, 1066 (9th Cir. 1987); *Consolidation Coal Co*., 15 FMSHRC 1555, 1557 (Aug. 1993). In this regard, section 57.5005 does not countenance regular use of personal protective equipment in lieu of engineering controls to protect against airborne contaminants. Instead, it provides only a narrow exception in limited circumstances. The instant situation does not fit within this narrow exception for two reasons.

First, it is clear that the exception only applies in limited situations where miners must set up engineering controls in the first instance or conduct investigations or maintenance in areas where engineering controls are usually not required because miners are not present (for instance in a sealed off area). Those circumstances are not present here.

Second, as the Judge himself noted, "section 57.5005 . . . is couched throughout in terms of a miner's 'work.'" 46 FMSHRC at 699. The clear terms of section 57.5005 provide for an exception to section 57.5001 only when miners work, not when they seek to escape a mine emergency by utilizing the secondary escapeway. Section 57.5005 allows miners to perform tasks in hazardous conditions if they are "protected by appropriate respiratory protective equipment." However, in *Consol Penn Coal Co.*, 39 FMSHRC 1893, 1901 n.17 (Oct. 2017), we held that "the vagaries of human conduct cannot be ignored." In a chaotic emergency, miners

who forget to use their respirators when evacuating through the secondary escapeway are arguably not "protected" by "appropriate respiratory protective equipment."[9] The respirator exception in section 57.5005 is inapplicable to the facts.

D. The Judge Erred in Finding that the Operator Lacked Notice.

The test for notice is "whether a reasonably prudent person familiar with the mining industry and protective purpose of the standard would have recognized the specific prohibition or requirement of the standard." *Sunbelt Rentals, Inc.*, 38 FMSHRC at 1627. We consider "whether the operator would have been aware of the requirement of the standard because of past case precedent." *Id.* In the past, we have used one mine safety standard to interpret another. *Solar Sources, Inc.*, 37 FMSHRC 218, 221 (Feb. 2015). We find that a reasonably prudent operator would have been aware that MSHA's mandatory safety standards effectively mandate the withdrawal of miners when NO_2 concentrations exceed 5 ppm. *See* 30 C.F.R. §§ 57.5001(a), (c).

Consequently, the operator would have been aware of the specific prohibition of section 57.11051—that miners cannot work underground when the secondary escapeway contains over 5 ppm of NO_2 (the limit in section 57.5001). Moreover, there was comprehensive testimony during the hearing that the operator had an internal policy whereby it required miners to withdraw, for safety reasons, from any areas in the mine which had a concentration of NO_2 greater than 5 ppm. Tr. 116, 689-90, 770, 772, 774, 857. Therefore, the operator was aware, before the MSHA inspection, that NO_2 concentrations which exceeded 5 ppm were hazardous.[10, 11]

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[9] This gets to the heart of an axiomatic principle of the Mine Act which we have emphasized to the point of exhaustion: the existence of a redundant safety measure is irrelevant to the existence of a violation. *See Black Beauty Coal Co.*, 38 FMSHRC 1307, 1313 (Jun. 2016).

[10] Cargill argues that MSHA's prior failure to cite the operator for similar conditions affected its notice. Cargill's Resp. Br. at 21-23. However, the Fifth Circuit rejected an operator's claim of inadequate notice in similar circumstances, finding that "inconsistent enforcement is no[t an] excuse" and that the operator had adequate notice based on a prior Commission decision. *Cactus Canyon Quarries, Inc.,* 64 F.4th 662, 666 (Apr. 2023). Similarly, here, the operator had notice of the Commission's holding that case precedent can provide notice, and of the Commission case precedent using one mine safety standard to interpret another.

[11] The operator, on appeal, raises two constitutional issues regarding the Commission's authority to assess penalties, and the President's ability to remove Commissioners of the Commission. Cargill's Resp. Br. at 24-27. We decline to reach these arguments because Cargill failed to properly raise them.

Cargill failed to raise its constitutional arguments in a petition for discretionary review or during the hearing before the Judge and did not explain its failures to do so. Instead, it raised these issues for the first time in its appellate brief responding to the PDR. Cargill's Resp. Br. at

IV.

Conclusion

We hold that Cargill violated section 57.11051(a) because the concentration of NO_2 in the secondary escapeway during the MSHA inspection created an unsafe condition. We also conclude that the operator was provided adequate notice of the requirements of the standard. Therefore, we reverse the Judge's decision vacating Citation No. 9669536, find a violation of the safety standard, and remand for further findings consistent with this decision. On remand, the assigned Judge[12] must determine the appropriate penalty amount after resolving any outstanding issues, such as the "significant and substantial" nature of the violation.

Marco M. Rajkovich, Jr., Chair

Mary Lu Jordan, Commissioner

Timothy J. Baker, Commissioner

Moshe Z. Marvit, Commissioner

24, 27. Further, Cargill did not allege, let alone demonstrate, good cause for its failure to raise the issue below. We decline to review the constitutional issues belatedly raised by Cargill in its appellate response brief. *See Sunbelt Rentals, Inc.,* 42 FMSHRC 16, 21 (Jan. 2020); 30 U.S.C. § 823(d)(2)(a)(iii).

[12] The Judge who presided over this matter has since retired.

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