OAH Docket No. 60-2004-37824

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE DEPARTMENT OF NATURAL RESOURCES

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| In the Matter of the NorthMet Project Permit to Mine Application | **Minnesota Department of Natural Resources' Reply Brief Regarding ALJ Report** |

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In their exceptions briefs, Petitioners cherry-pick evidence in support of their position that the bentonite amendment will not be effective in restricting water and oxygen infiltration to the NorthMet tailings over time. But this is simply a restatement of the evidence that Petitioners already presented to the ALJ. It was the job of the ALJ to weigh the evidence proffered and render judgment. Here, he concluded that the weight of the total evidence indicates that the bentonite amendment can be successfully applied and will be effective over time. The ALJ's decision should not be set aside simply because Petitioners wish he had given more weight to their evidence.

As to the legal issues surrounding the reactive mine waste rule, Petitioners champion an atextual interpretation that fails to give meaning to all the words in the rule, ignores the goal of the rule, and would make it practically impossible to permit a non-ferrous mine in Minnesota. Properly applied, the reactive mine waste rule is satisfied by the proposed NorthMet Project.

## I. THIS MATTER SHOULD BE STAYED GIVEN RECENT PRESS STATEMENTS INDICATING THAT POLYMET WILL LIKELY AMEND THE PERMIT APPLICATION.

Before responding to Petitioners, the Hearing Team notes its continued belief that this matter should be stayed. PolyMet has recently issued a press release stating that "it is embarking on four key studies to assess whether new mining technology . . . can further enhance environmental safeguards and mining performance for our NorthMet project."[1] During this review, PolyMet will study "a variety of tailing storage options", which, if one option is selected, would trigger an amendment to the permit to mine application and likely another environmental

[1] NEWRANGE EMBARKS ON PROJECT-WIDE STUDIES TO FURTHER ENHANCE ENVIRONMENTAL SAFEGUARDS AND PROJECT PERFORMANCE, August 14, 2024, https://www.newrangecoppernickel.com/newrange-embarks-on-project-wide-studies-to-further-enhance-environmental-safeguards-and-project-performance/ (last accessed August 26, 2024).

review. Mounting evidence therefore suggests that PolyMet is unlikely to construct the project that it submitted to DNR in its present form. While PolyMet has not stated that it will amend the permit to mine application after it concludes its studies, the Hearing Team remains concerned that PolyMet may be asking the final agency decision-maker to issue an advisory opinion on the reactive mine waste rule for a project design that may never materialize.[2]

Given these developments, the Hearing Team asks that this matter be stayed until PolyMet makes a final and definitive determination regarding whether it will propose changes to this project. Proceeding with the contested case hearing in the face of the potential project changes is inconsistent with the purpose of a contested case hearing in a mining matter. Minnesota Statute § 93.483, subd. 3 provides that a contested case hearing should be held where there are "disputed material issues of fact so that a contested case hearing would allow the introduction of information that would aid the commissioner in resolving the disputed facts . . . to make a final decision." If PolyMet does move forward with an alternate project, which it appears poised to do (why announce to the world that it is studying alternatives to make the project better if it didn't think it would make changes to the tailings design?), the only issue left to resolve is the interpretation of Minnesota's mine waste rule, which is not an issue of fact.

Before granting the stay, however, there are two questions that must be addressed: *First*, can the final agency decision-maker consider PolyMet's recent public statements related to its plans to study tailing storage options? He can. Under Minn. Stat. § 14.60, subp. 4, the final

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[2] *See Izaak Walton League of America Endowment, Inc. v. State, Depart. of Natural Resources*, 252 N.W.2d 852, 854 (Minn. 1977) ("The existence of a justiciable controversy is prerequisite to adjudication. The judicial function does not comprehend the giving of advisory opinions.")

agency decision-maker may take judicial notice of certain facts.[3] *Second*, does the final agency decision-maker have the authority to issue a stay once the ALJ issues its recommendations? Here, no statute eliminates DNR's power to issue a stay before the briefing on exceptions has concluded.[4] Accordingly, because no statute strips DNR of its inherent authority to issue a stay, DNR retains this power.[5]

In short, the Hearing Team believes a stay is warranted under these circumstances because it will eliminate the risk of DNR issuing an advisory opinion and prevent the waste of state resources.

## II. THE AMENDED NOTICE IS VALID.

Petitioners restate several procedural arguments that the ALJ already rejected. Because neither the law nor material facts have changed, these arguments should be rejected yet again.

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[3] *See, e.g., In re Excess Surplus Status of Blue Cross & Blue Shield of Minn.,* 624 N.W.2d 264, 281-82 (Minn. 2001) (providing that Minn. Stat. § 14.60, subp. 4, allows the final decision-maker to take notice of facts similar to the documents at issue here ("publication[s]" and "web site pages") *after* the conclusion of a hearing before an ALJ if the parties are provided notice and an opportunity to respond).

[4] There do not appear to be any cases that address whether the APA has stripped DNR's authority to issue a stay in this circumstance. Cases have, however, rejected an agency's authority to issue a remand to the ALJ. *See, e.g., In re Surveillance & Integrity Review Section*, 996 N.W.2d 178, 186-87 (Minn. 2023). But issuing a stay, *before the briefing has concluded*, is fundamentally different than issuing a remand after briefing. A stay before the briefing has concluded is about exercising the agency's discretion over a briefing schedule to preserve the status quo. In this context, a stay could be justified for a variety of reasons, including the parties' decision to enter into settlement discussions or an unexpected illness. Put simply, DNR has considerable latitude over briefing schedules, and nothing in state law eliminates the agency's ability to pause briefing in the appropriate circumstance.

[5] *See Anchor Casualty Co. v. Bongards Co-operative Creamery Asso.,* 253 Minn. 101, 104-05 (1958) (ruling, prior to the enactment of the APA, that agencies have the power to stay proceedings). *Cf., Weitzel v. State*, 883 N.W.2d 553, 559 (Minn. 2016) ("the power to stay proceedings is incidental to the power inherent in every court to control the disposition of causes on its docket") (quoting *Landis v. N. Am. Co.,* 299 U.S. 248, 254-55 (1936)).

Given space constraints, we will focus on one procedural argument: whether DNR lacked authority to issue the Amended Notice. WaterLegacy Exceptions at 26-30; Band Exceptions at 4 n.3. This matter was fully briefed before the ALJ, who properly ruled that it is for the Commissioner to set the scope of the hearing.[6] Fundamentally, Petitioners ignore the clear authorization for an agency to issue an amended notice "[a]t any time prior to the start of the evidentiary hearing." Minn. R. 1400.5600, subp. 5. With respect to the NorthMet Project, the Commissioner delegated to Commissioner Designee Wilson "all authority delegated to the commissioner as the ***final agency decision maker*** in this matter." OAH Official Record, OAH 60-2004-37824 PolyMet Official Record ("OAH Record"), at p. 14304 (emphasis added). Setting the scope of this hearing, including through issuance of an amended notice, is a preliminary procedural step, not the "final agency decision." Put simply, the Commissioner's delegation of authority is limited to the "final agency decision," and the Commissioner did not delegate the authority to set the scope of the hearing to Commissioner Designee Wilson.

## III. THE FINAL AGENCY DECISION-MAKER SHOULD ADOPT THE ALJ'S CORE FINDINGS OF FACT REGARDING THE EFFECTIVENESS OF THE BENTONITE AMENDMENT.

The Minnesota Supreme Court held that DNR lacked substantial evidence to support the denial of a contested case hearing on the effectiveness of the bentonite amendment.[7] *See In re*

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[6] The Hearing Team has already argued this issue in further detail in its March 29, 2022, Response in Opposition to Petitioners' Motion to Nullify or Vacate DNR's Amended Notice, OAH Record at pp. 14080-14101, which the Hearing Team hereby incorporates by reference. The ALJ correctly held that the Amended Notice is valid. OAH Record at pp. 14077-78 (June 27, 2022, Order at 3-4).

[7] Most of the work evaluating the effectiveness of bentonite was conducted during the environmental review, but these documents were not included in the appeal record. OAH Record at p. 1348, Hearing Team Proposed FOF at ¶ 57. Instead, the record before the Court of Appeals and Supreme Court consisted of documents from the permitting process. Though the record consisted of over 700,000 pages, it did not include all documents that DNR considered relating to bentonite

*NorthMet Project Permit to Mine Application*, 959 N.W.2d 731, 752-54 (Minn. 2021). The Court then remanded for a contested case hearing to provide the parties with an opportunity to evaluate the proposed application of bentonite to determine whether bentonite would reduce infiltration of oxygen and water to meet the modeled values for hydraulic conductivity and percolation.[8]

The hearing established that existing materials at the basin sides and beaches have low hydraulic conductivities[9] and that amending the tailings with bentonite creates significant flow resistance if the bentonite remains saturated and does not degrade.[10] As to bentonite's effectiveness, the ALJ correctly found that the bentonite amendment would allow for a significant reduction in conductivity and achieve performance expectations.[11] The ALJ also

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during the underlying environmental review process. *See generally* OAH Record at pp. 27-29, FOF ¶¶ 107-121.

[8] By reducing oxygen and water infiltration, the bentonite amendment is designed to limit oxidation of the tailings, which in turn would limit the release of sulfate and metals.

[9] Ex. 74 at 303-336, 434-443 (Radue Direct); Ex. 77 at 177-179 (Hull Rebuttal); Ex. 79 at 162-173 (Diedrich Rebuttal); *see also* Ex. 63; Ex. 64.

[10] Tr. Vol. 2 at 141:2-22 (Hull).

[11] OAH Record at p. 9, 32, ALJ Report at 3, COL ¶ 15. For the basin sides, to meet performance expectations, the modeled hydraulic conductivity rate must be $5.56 \times 10^{-6}$ cm/sec. Ex. 75 at 217-218, 223-225, 274-275 (Radue Rebuttal). The test of 3% bentonite-amended LTV *coarse* tailings on the basin sides had a hydraulic conductivity rate of $1.8 \times 10^{-7}$ cm/sec. Tr. Vol. 1 at 62:20-63:6 (Radue); Tr. Vol. 2 at 110:10-111:19 (Radue); Ex. 75 at 257-259, 291-294 (Radue Rebuttal); Ex. 16. The lab-confirmed rate is more than 30 times lower than the modeled rate. Ex. 75 at 274-275, 294-296 (Radue Rebuttal). The NorthMet flotation tailings, which will be mixed with bentonite on the beaches, start with a lower permeability than the LTV coarse tailings that were tested with 3% bentonite. Tr. Vol. 1 at 39:12-40:13, 64:7-17 (Radue); Tr. Vol. 2 at 111:6-19 (Radue). Thus, the bentonite amendment to the flotation tailings on the beaches should have an even lower conductivity rate than the basin sides. Ex. 74 at 331-336, 355-363 (Radue Direct); Ex. 75 at 250-259 (Radue Rebuttal). Testimony also established that the application of bentonite to the pond bottom can meet the percolation rate that is the modeled target. Tr. Vol. 3 at 9:9-22 (Hull); Tr. Vol. 3 at 33:4-34:14 (Diedrich).

agreed with the Hearing Team on all five contested fact issues, including that (i) bentonite could be applied to the basin sides, beaches and pond bottom,[12] and (ii) conditions at the tailings basin would not cause bentonite to degrade to such an extent that it would no longer be effective.[13] All of the ALJ's findings are well supported by the hearing record.[14]

Nonetheless, Petitioners contend that the ALJ's findings are flawed or simply wrong. Many of their exceptions are sour grapes—when there was a fact dispute between witnesses, Petitioners believe that the ALJ erred by not adopting their witnesses' testimony. For example, Petitioners argue that literature and experience do not support PolyMet's proposal to apply bentonite through a water column to the pond bottom. *See, e.g.*, MCEA Exceptions at 17. The ALJ disagreed—for good reason: the testimony and evidence on this issue was compelling.[15]

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[12] OAH Record at pp. 15-19, FOF at ¶¶ 26-56.

[13] OAH Record at pp. 22-27, FOF at ¶¶ 75-106. On this point, it is worth underscoring that site-specific conditions drive bentonite's performance, *see, e.g.,* Tr. Vol. 5 at 89:3-7 (Benson), and the ALJ heard considerable testimony related to the site-specific work that informed PolyMet's analysis and conclusions. *See, e.g.,* Ex. 79 at 297-305 (Diedrich Rebuttal); Ex. 75 at 276-298 (Radue Rebuttal). In stark contrast, Petitioners' witnesses did not do any site-specific work for the NorthMet Project to support their analysis. *See, e.g.,* Tr. Vol. 4 at 64:18-25 (Malusis) (no modeling on cation exchange); Tr. Vol. 4 at 62:4-8 (Malusis conceding that he did not quantify how much any cation exchange on the sides and beaches could impact the hydraulic conductivity of the bentonite-amended tailings). Instead, Petitioners' experts rely mostly on inapposite studies involving solutions with higher ionic strength, which would promote greater cation exchange than the water in the NorthMet tailings basin. *See, e.g.,* Ex. 201 at 6:30–7:3 (Malusis Rebuttal); Ex. 105 at 8:8–9:3 (Wenz Rebuttal); Ex. 79 at 272-290 (Diedrich Rebuttal).

[14] *See generally* OAH Record at pp. 1351-63, Hearing Team Proposed FOF ¶¶ 85-190; OAH Record at p. 1406-75, PolyMet's Proposed FOF at ¶¶ 9-259; Ex. 79 (Diedrich Rebuttal); Ex. 75 (Radue Rebuttal) (responding to Petitioners' witnesses).

[15] The evidence indicates that bentonite has a proven track record of being applied subaqueously through water columns to the bottom of a water body. Tr. Vol. 2 at 123:16–124:18 (Hull); Ex. 74 at 451-482 (Radue Direct); Ex. 76 at 214-312 (Hull Direct); Exs. 18, 19, 43; Tr. Vol. 2 at 135:4-15 (Hull); Tr. Vol. 3 at 11:24–12:18, 17:10-17, 19:16-20 (Hull); *see also* Ex. 202.09 (publication discussing the use of bentonite to seal ponds and lakes). Moreover, witnesses testified that there are no concerns about the scale of this application. Tr. Vol. 1 at 53:23–54:10 (Radue); Tr. Vol. 2 at 133:5–135:15 (Hull).

Likewise, Petitioners' contention that bentonite cannot be applied in a homogenous or uniform layer (MCEA Exceptions at 19-27) is contradicted by voluminous evidence.[16] Simply put, the ALJ heard a number of disputes raised by Petitioners that are contradicted by the record, including their arguments that (i) the lab results and modeling are unreliable;[17] (ii) bentonite will not remain saturated;[18] (iii) cation exchange will materially increase conductivity;[19] (iv) the proposed testing regime is inadequate;[20] and (v) proposed mitigation measures are not practicable.[21]

Other factual disputes identified by Petitioners are largely irrelevant because these issues matter only if Petitioners have correctly interpreted the reactive mine waste rule or Minn. Stat. §

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[16] OAH Record at p. 19, FOF at ¶ 55. For basin sides, *see* Ex. 74 at 406-16 (Radue Direct); Ex. 104 at 3:18–4:4 (Ulrich Rebuttal); Tr. Vol. 4 at 7:9-12 (Kuipers); Ex. 76 at 436-43 (Hull Direct) (describing bentonite use in the construction and repair of trench dams, cofferdams, permanent dams, levees, and other water control structures); *see also* Tr. Vol. 3 at 16:19-17:2, 56:24-57:22 (Hull); Tr. Vol. 4 at 57:17-19 (Malusis). While everyone agrees that the application to the beaches will be more difficult, there was considerable testimony that it can be accomplished. Ex. 75 at 567-570 (Radue Rebuttal); *see id.* at 79-92, 555-581; Tr. Vol. 2 at 100:10-102:5 (Radue); Ex. 74 at 534-540 (Radue Direct); Ex. 68; Ex. 70.

[17] Tr. Vol. 2 at 110:11-111:1 (Radue); Tr. Vol. 3 at 210:11-213:21, Tr. Vol. 4 at 153:11-157:17 (Wenz).

[18] Tr. Vol. 2 at 181:2-184:10 (Hull explaining why bentonite will remain saturated); Tr. Vol. 3 at 198:1-205:14, Tr. Vol. 4 at 135:1-136:12, 140:16-141:25 (Wenz testimony discussing saturation); Ex. 75 at 390-402 (Radue Rebuttal). More generally, approximately 6.5 inches of rain will infiltrate the basin every year, which, in turn, will provide a consistent saturation source.

[19] Tr. Vol. 3 at 40:5-45:22, 68:22-71:11, 106:8-110:17 (Diedrich); Tr. Vol. 4 at 149:11-151:5, 161:2-162:5 (Wenz); Ex. 79 at 176-263 (Diedrich Rebuttal).

[20] OAH Record at p. 1464-67; Hearing Team Proposed FOF ¶¶ 126-139, 172, 181, 231-233.

[21] OAH Record at p. 26, FOF at ¶ 104; Tr. Vol. 2 at 142:15-143:17, Tr. Vol. 3 at 20:1-21:18 (Hull); OAH Record at p. 1464-67.

93.481, subd. 2—*i.e.,* if the Hearing Team is properly interpreting the law, then these exceptions can have no impact on the outcome of this contested case hearing.[22]

Another set of arguments are red herrings. For example, Petitioners insist there are no examples of bentonite being applied to a pond bottom that demonstrate compliance with the reactive mine waste rule, WaterLegacy Exceptions at 32, which is an impossible standard to meet because this is the first non-ferrous project to go through permitting in Minnesota.

Other points raised by Petitioners are based on a misapprehension of the record. For example, WaterLegacy errs by raising concerns based on an inaccurate understanding of metal and sulfate concentrations. WaterLegacy Exceptions at 17. Contrary to WaterLegacy's characterization, the model calculation was purposefully designed to enhance sulfate and metal release to produce results that would provide an elevated chemical loading scenario to ensure treatment design could account for enhanced solute loads.[23] WaterLegacy also incorrectly maintains that PolyMet's model predicted "close to zero" oxygen infiltration of the tailings.

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[22] For example, Petitioners contend the ALJ failed to address that NorthMet tailings on the beaches will be exposed to natural elements. MCEA Exceptions at 4, 18-19. But if the reactive mine waste rule allows for the water to be captured and treated to avoid adverse impacts to natural resources, then water can contact the reactive mine waste on the beaches. *See, e.g.,* Ex. 79 at 339-342 (Diedrich Rebuttal) (addressing weathering on beaches); *see generally id.* at 306-315 ("There is no expectation or need to entirely preclude the tailings from reacting. The data and modeling show that tailings will be stored in an environment where their reactivity will be sufficiently controlled to meet environmental objectives. . . . It is not necessary to entirely halt reactivity. In the strictest sense, it is not possible, under any set conditions, as there will always be some reaction occurring at the mineral-fluid interface. The best site-specific information that we have for NorthMet indicated that reactivity of the tailings will be sufficiently controlled.").

[23] Ex. 105 at pp. 152-53.

WaterLegacy Exceptions at 18. But the actual basin model assumes oxygen will infiltrate the basin.[24]

Next, Petitioners raise exceptions that are not directly addressed by the ALJ. For example, the ALJ found that cation exchange should not present a problem, in part, because the ionic strength of the surrounding fluid would be relatively low "such that it is not anticipated to result in consequential levels of cation exchange." OAH Record at p. 23, FOF at ¶¶ 85-86.[25] Petitioners maintain, however, that even if the bentonite will interact with low-ionic solutions, there will still be a 10-fold increase in conductivity from cation exchange within low-ionic strength solutions in just a few years. *See, e.g.,* WaterLegacy Exceptions at 33. They also argue that cation exchange and wet/dry cycles, even with low-ionic strength solutions, will increase conductivity by up to four orders of magnitude. WaterLegacy Exceptions at 34; MCEA Exceptions at 33-36.

Contrary to these arguments, there is considerable evidence in the record establishing that (i) site-specific conditions at the tailings basin will not result in significant cation exchange and (ii) the design of the bentonite-amended layer can be refined to accommodate the actual water chemistry.[26] Moreover, the studies Petitioners cite to support this argument have little relevance because they evaluate the effects of cation exchange on GCLs, which are difficult to compare to

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[24] Ex. 105 at pp. 174-77, 179-82. Ex. 79 at 306-315 (Diedrich Rebuttal) (noting that the modeling assumes that the tailings will react).

[25] OAH Record at p. 23, FOF at ¶¶ 85-86, addresses the general point related to whether cation exchange will degrade bentonite at the tailings basin and increase conductivity. *See generally,* OAH Record at pp. 1357-60, Hearing Team Proposed FOF at ¶¶ 150-168.

[26] Ex. 79 at 228-63 (Diedrich Rebuttal); Tr. Vol. 3 at 40:5-45:17, 68:22-71:11, 106:8-110:11 (Diedrich); Tr. Vol. 4 at 149:11-151:5, 161:2-162:5 (Wenz). *See also* OAH Record at pp. 1357-60, Hearing Team Proposed FOF at ¶¶ 150-168.

bentonite-amended soil covers.[27] In all events, the best evidence supports the conclusion that solutions contacting the bentonite amendments on the basin sides and beaches will be far too low in concentrations of calcium and magnesium to preclude bentonite from swelling.[28] For the pond bottom, the pond itself would keep the pond bottom saturated, essentially eliminating wet-dry cycling and limiting the consequences of any cation exchange.[29]

Finally, Petitioners argue that the ALJ failed to address studies showing that bentonite-amended soils degrade. But even studies cited by Dr. Benson illustrate that bentonite's effectiveness is site-specific; indeed, some studies cited by Dr. Benson included instances where hydraulic conductivity achieved the modeled values over time.[30]

## IV. THE BENTONITE AMENDMENT IS PRACTICAL AND WORKABLE.

MCEA argues that the evidence presented by PolyMet pertains to whether bentonite is an "available technology" as opposed to whether bentonite is a practical and workable reclamation technique. MCEA Exceptions at 13-15. That is a distinction that has no basis in reality. As the ALJ properly found, and as no party disputes, the bentonite amendment is "practical and workable" if it is "likely to achieve what is intended in the real-world situation contemplated for the NorthMet Project's tailings Basin." OAH Record at p. 31, ALJ Report at COL ¶ 5. After hearing voluminous evidence on this issue, the ALJ held that the "purpose" of the bentonite

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[27] Ex. 105, Wenz Rebuttal at 8:8–9:3; Tr. Vol. 4 at 77:19-80:7 (Malusis); Tr. Vol. 4 at 116:3-19 (Wenz); Ex. 79 at 272-278 (Diedrich Rebuttal).

[28] Ex. 79 at 228-263 (Diedrich Rebuttal); *see also* Ex. 75 at 1143-1147 (Radue Rebuttal); Tr. Vol. 3 at 42:20-43:1, 44:25-45:4, 108:18-109:22 (Diedrich); *see also* OAH Record at pp. 1462-63, PolyMet Proposed FOF at ¶¶ 215-221.

[29] *See* Tr. Vol 4 at 95:14-18 (Malusis); OAH Record at p. 23, FOF at ¶¶ 88-89.

[30] OAH Record at pp. 1362-63, Hearing Team Proposed FOF at ¶¶ 186, 189; *see also* Ex. 75 at 314-347 (Radue Rebuttal).

amendment "is to reduce water and oxygen infiltration enough to meet the modeled values for hydraulic conductivity and percolation," OAH Record at p. 14, FOF ¶ 21, and that the bentonite amendment is in fact likely to meet these modeled values, OAH Record at p. 32, COL ¶ 15. *See also* OAH Record at pp. 1350-51, 1360-61, Hearing Team Proposed FOF at ¶¶ 79, 84, 174-75. Because the evidence shows that the bentonite amendment is likely to achieve what is intended, the evidence shows that the bentonite amendment is practical and workable.

Petitioners try to downplay the record evidence by arguing that the proposed use of bentonite here materially differs from the numerous historical uses of bentonite presented at the hearing. But the fact that PolyMet's proposed use of bentonite differs in certain ways from prior uses does not alter the core finding that bentonite is commonly used to effectively restrict water movement.[31] Under Petitioners' preferred standard, it seems the only way to show the bentonite amendment is practical and workable would be to provide a real-world example where bentonite was used in the exact same manner as that proposed here. There is no basis to draw the inquiry so narrowly.

## V. PETITIONERS MISREPRESENT THE PURPOSE OF THE SPECIAL CONDITIONS.

Petitioners argue that the Hearing Team's request for revised special conditions regarding post-permit-issuance testing is an improper effort to use future evidence to determine whether the bentonite amendment is a practical and workable reclamation technique. Band Exceptions at 11-12; MCEA Exceptions at 28, 30; WaterLegacy Exceptions at 25. Not so. The record evidence, as it already exists, indicates that the bentonite amendment is a practical and workable reclamation technique that will satisfy the reactive mine waste rule. However, that simply means

[31] *See, e.g.,* Ex. 75 at 314-347, 364-389, 451-614 (Radue Rebuttal).

the bentonite amendment is *likely* to work as intended. *See* OAH Record at p. 31, ALJ Report at COL ¶ 5 ("The bentonite amendment is 'practical and workable' if it is likely to achieve what is intended ….''). Even so, the Hearing Team believes it is necessary to impose additional special conditions aimed at providing further confirmation of the bentonite amendment's efficacy. *See* OAH Record at p. 19-20, ALJ Report at FOF ¶ 57. The special conditions also play an important role in perfecting the application techniques for the bentonite amendment by "determining certain variables like the optimal dose and type of bentonite" to use. *Id.* The request for special conditions in no way undermines the existing record support for the conclusion that the bentonite amendment is a practical and workable reclamation technique that will satisfy the reactive mine waste rule.[32]

## VI. THE BENTONITE AMENDMENT WILL SATISFY THE REACTIVE MINE WASTE RULE.

### A. Subpart 2(B)(1) Is Satisfied Because the Tailings Will Be Stored in an Environment Such that They Are No Longer Reactive.

#### *1. Petitioners Misconstrue the Rule's Allowance of Waste Storage.*

The goal of the reactive mine waste rule is "to prevent the release of substances that result in the adverse impacts on natural resources." Minn. R. 6132.2200, subp. 1. The rule then provides in subpart 2(B) several options for how to achieve this goal. Petitioners breeze past the rule's goal and argue that subpart 2(B)(1) requires that the project "either (1) directly modify the characteristics of the tailings or (2) isolate the tailings from oxygen so that their reactive properties do not manifest." MCEA Exceptions at 6; *see also* WaterLegacy Exceptions at 13.

[32] It is very common with large-scale containment projects for field testing to occur immediately before construction when the contractor has been hired and the operator has the best knowledge of site conditions and can refine the means and methods based on that knowledge. Tr. Vol. 2 at 153:14-167:4 (Hull); Tr. Vol. 4 at 26:8-37:11 (Kuipers).

This is a distortion of the rule, which says nothing about isolating tailings from oxygen. Indeed, such a requirement would be impractical given the ubiquity of oxygen and the fact that it is naturally present in both air and water.[33] Tribunals should avoid construing laws in an unreasonable manner that could never be implemented.[34]

Instead of fully isolating mine waste from oxygen (a standard which few if any applicants could satisfy, thereby rendering non-ferrous mining virtually impossible in Minnesota),[35] an applicant may satisfy the rule by "storing waste in an environment such that it is no longer reactive"—*i.e.*, storing waste such that substances do not flow out from the storage environment and cause adverse impacts to natural resources.

Similarly, Petitioners' argument that seepage capture can play no role in satisfying subpart 2(B)(1) of the reactive mine waste rule conflicts with the rule's plain language. The rule calls for storage of waste "such that the waste is no longer reactive," and "reactive mine waste" is defined in terms of adverse impacts to natural resources. Minn. R. 6132.2200, subp. 2(B)(1); Minn. R. 6132.0100, subp. 28. Thus, whether waste is "no longer reactive" depends on whether the waste causes adverse impacts to natural resources, not whether the waste is exposed to oxygen. And whether there are adverse impacts to natural resources may depend on how the waste is stored, including whether the storage facility includes a method of capturing and treating

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[33] *Cf.* Ex. 79 at 306-315 (Diedrich Rebuttal).

[34] *Cf.* Minn. Stat. § 645.17(1) ("the legislature does not intend a result that is absurd, impossible of execution, or unreasonable"); *see also Troyer v. Vertlu Mgmt. Co*., 806 N.W.2d 17, 25 (Minn. 2011) (rejecting interpretation of a rule that "would be impossible to implement").

[35] *Id.* Further underscoring the impracticality of eliminating any and all oxygen exposure, Dr. Diedrich testified that, from a geochemistry perspective (not a legal perspective), "[t]here is no scenario in which you would preclude all materials from reacting." Tr. Vol. 3 at 99:1-3.

seepage such that it is not released beyond the storage facility to the surrounding natural resources.[36]

Petitioners further err in their reliance on the rulemaking history. In particular, they lean on the following excerpt from the SONAR to argue that seepage capture is not a permissible form of waste storage:

> To meet the first requirement [of the rule], measures would have to be taken to prevent substances, that adversely impact natural resources, from forming within the mine waste. If no such substances are allowed to form, it can reasonably be expected that no impact will occur. . . . Another method, that consists of merely collecting contact water and treating it in order the [sic] meet water quality discharge standards, without a substantial effort to minimize the amount of water contacting the waste, has been rejected.

Band Exceptions at 23, 26; MCEA Exceptions at 6-7; WaterLegacy Exceptions at 10 (citing Ex. 336 at 22, R.0730374). This citation is misleading, as the SONAR was published when the draft of subpart 2(B)(1) mandated modification of mine waste. The other option—storage of waste in an environment such that it is no longer reactive—was added later in the rulemaking process and postdated publication of the SONAR.[37] Thus, the SONAR language on which Petitioners rely fails to account for the full and final language of subpart 2(B)(1). Because the NorthMet Project

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[36] WaterLegacy misrelies on a diagram showing the "toe of tailings" 200 to 300 feet from the cutoff wall for the seepage containment system, arguing this means the seepage containment system lies beyond the tailings basin and cannot play any role in tailings storage. WaterLegacy Exceptions at 11. In reality, the tailings ***basin*** does not end at the toe of the tailings but rather includes the seepage containment system. Ex. 219 at 0115646, Permit to Mine FOF ¶ 653 ("The [flotation tailings basin] design includes a containment system consisting of a cutoff wall, with a collection trench and drain pipe ...."); *id.* at 0115587, Permit to Mine FOF ¶ 289 n.9 ("The tailings basin not only provides a place for storing the waste, but also provides a quiescent location for clarifying the tailings water ....").

[37] *See* https://www.revisor.mn.gov/rules/status/rule/R-02058 (listing Nov. 9, 1992 as the publication date of the SONAR, followed by a March 15, 1993 amendment to add the storage prong under subpart 2(B)(1)); Ex. 108 (March 15, 1993 amendment adding the storage option to subpart 2(B)(1)).

is aimed at satisfying the storage, rather than modification, prong of subpart 2(B)(1), Petitioners' reliance on the SONAR is misplaced.

In short, Petitioners' interpretation of subpart 2(B)(1) ignores the goal of the rule, renders text superfluous, sidesteps definitions, and imposes an unreasonable standard that is virtually impossible for any mining company to satisfy.

*2. Petitioners Misconstrue the Role of Water Quality Standards in Satisfying Subpart 2(B)(1).*

Petitioners put forth several erroneous arguments for why water quality standards cannot be considered as part of subpart 2(B)(1). For starters, they argue that subpart 2(B)(1) does not reference or incorporate water quality standards. Band Exceptions at 26. While that is true as far as it goes, "reactive mine waste" is defined as waste that "release[s] substances that adversely impact natural resources," and "adversely impact natural resources" is defined as "an unacceptable level of impact on the natural resources as determined by the commissioner…." Minn. R. 6132.0100, subps. 3, 28. This set of definitions raises a key question for which Petitioners provide no answer: What constitutes an unacceptable impact to natural resources? The Hearing Team offers a clear and objective standard—whether or not predictive modeling indicates that environmental standards will be met. Petitioners, on the other hand, offer no alternative standard, thereby rendering the determination of "unacceptable" impacts a hopelessly subjective and ambiguous endeavor.

Petitioners likewise miss the mark with their argument that DNR is usurping the authority of other agencies that are tasked with setting and enforcing water quality standards. Band Exceptions at 26-27; MCEA Exceptions at 8. DNR is not taking any action to set, implement, or enforce water quality standards, as those functions admittedly fall under the purview of other agencies. Rather, DNR has taken water quality standards, as set by other agencies, and used

predictive modeling to forecast whether the Project will meet those standards (as applied beyond the tailings basin) throughout construction, operations, reclamation, and closure. There is nothing improper about this.

Petitioners' argument suggests that DNR may not ever consider impacts to water quality when determining whether to issue a permit to mine. That position is nonsensical and antithetical to the legislature's directive that DNR exercise its jurisdiction to "control possible adverse environmental effects of mining," Minn. Stat. § 93.44, and Chapter 6132's purpose to "preserve natural resources" and "ensure that the mining area is left in a condition that protects natural resources." Minn. R. 6132.0200; *see also* Ex. 338 at pp. 30-31 (Tr. 28:16-29:7) (rulemaking testimony noting that while MPCA "sets and enforces water quality standards," DNR "also ha[s] some responsibilities to look at the water quality issue"). Tellingly, WaterLegacy expressly, and correctly, acknowledges that "DNR … has an independent obligation to protect water resources from adverse effects," thereby undermining Petitioners' argument that DNR is precluded from considering a project's impacts on water quality. WaterLegacy Exceptions at 12.

Also contrary to Petitioners' suggestion, pegging the natural resource impacts assessment to water quality standards is not a novel position taken for the first time by the Hearing Team. Rather, the Final Environmental Impact Statement, issued in 2015, analyzes whether the Project will have "significant" impacts based on modeled predictions of water quality exceedances. Ex. 216 at 741281 ("For the NorthMet EIS, the project will be assumed to estimate a significant

effect on water quality if the 90th percentile model concentrations exceed an applicable standard.").[38]

Finally, Petitioners argue that by focusing on water quality impacts, the Hearing Team is ignoring impacts to other natural resources. MCEA Exceptions at 8; Band Exceptions at 19. Not so. The Hearing Team acknowledges that the reactive mine waste rule applies to all natural resources. But water is the focal point here not only because water is the primary resource that would be impacted by this particular facility,[39] but also because of the relationship between water and the health of other natural resources. It is logical that DNR consider the impact of a proposed project on water quality in assessing impacts to the natural resources dependent on water. Indeed, Petitioners provide no record evidence of impacts to natural resources other than water, while Petitioners' own witness, Dr. Benson, testified that the "effectiveness" of bentonite is evaluated by whether it "provide[s] sufficient control so that water ingress and oxygen ingress remain below the thresholds defined based on maintaining groundwater and surface ***water quality standards*** …." Ex. 206.00 at 24:6-10 (emphasis added); *see also id.* at 35:14-17.

*3. Petitioners Misconstrue Decisions Regarding Other Permits under the Jurisdiction of Other Agencies.*

Petitioners argue that the Corps' decision regarding the Section 404 permit and the Minnesota Supreme Court's decision regarding the NPDES/SDS permit prove that the Project will not meet water quality standards. Band Exceptions at 27-32; WaterLegacy Exceptions at

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[38] As the modeling showed, the 90th percentile model concentrations do not exceed an applicable standard, and the Project is therefore not expected to have a significant effect on water quality. DNR Milestone Exhibits, 0715253, at pp. 101, 995, FEIS at ES-35, 5-9.

[39] Tr. Vol. 5 at 102:10-14 (Benson) ("Ultimately what matters is the impact on the water quality. That's really what we're after, right. And not only today, but throughout the entire service life of a facility we have to maintain water quality. And that's really the crux of it.").

14-15. But neither of those decisions had anything to do with the bentonite amendment on which this proceeding hinges. Nor did those decisions in any way implicate the predictive modeling on which DNR relied. Rather, each of those decisions reflects that *other* permits, as initially issued, are insufficient to meet the statutes and rules governing *other* agencies. By linking those separate decisions to this proceeding, Petitioners are attempting to transform this narrow case into a broad hearing on the whole project's compliance with water quality standards, separate and apart from bentonite's role in satisfying the reactive mine waste rule.

As explained in detail in the Hearing Team's opening brief, pp. 22-24, this approach would eviscerate DNR's independent permitting authority by precluding DNR from issuing a permit to mine unless and until other agencies issue, and courts affirm, separate water permits beyond DNR's jurisdiction. There is no basis to adopt a standard that renders DNR a subservient agency in the mine permitting process.[40]

### B. Petitioners Misconstrue the Text of Subpart 2(B)(2).

Petitioners double down on their misguided interpretation of "substantially all" in subpart 2(B)(2), arguing that this provision prohibits essentially any water from moving through or over the mine waste, regardless of the percentage of water movement relative to the overall volume of water at issue. Band Exceptions at 33; MCEA Exceptions at 10-11; WaterLegacy Exceptions at 20. As held by the long line of cases identified in the Hearing Team's opening brief, at pp. 25, 27-28, "substantially all" is uniformly treated as a relative term in which a given quantity is

[40] The permit to mine would include a requirement for PolyMet to obtain all other necessary permits, including a Section 404 permit from the Corps and an NPDES/SDS permit from MPCA. *See* Ex. 220 at 0115736, 0115739, Permit to Mine at pp. 2 (General Conditions), 5 (¶ 13a). Issues regarding the overall Project's impacts to water resources, including the Band's downstream waters, are properly addressed in the proceedings for those permits.

compared against a benchmark quantity connoted by the word "all." While Petitioners try to distinguish the cases cited by the Hearing Team, they fail to identify any counter examples where "substantially all" was used as an absolute term. In light of this glaring shortcoming, Petitioners cannot muster legitimate support for their preferred interpretation of "substantially all."

Continuing the pattern of interpretive distortions, the Band attempts to redefine "through" to mean "among or between." Band Exceptions at 34. In doing so, the Band argues that subpart 2(B)(2) prohibits the movement of water "within or among tailings," *i.e.*, the saturation of tailings, not just movement of water all the way through the tailings and out of the tailings basin. Band Exceptions at 36. Notably, the Band's preferred definition of "through" comes from the American Heritage Dictionary. Yet the Band's preferred listing is not the first definition of "through" provided by that dictionary. Rather, the American Heritage Dictionary's primary definition of "through" is "in one side and out the opposite or another side of," consistent with the Hearing Team's interpretation of the word.

In addition to being cherry-picked, the Band's preferred definition of "through" conflicts with the rulemaking history. Specifically, the Band's interpretation would seem to preclude water from saturating mine waste within a storage facility. But the record shows the rule was drafted to avoid the Band's interpretation. Early drafts of the rule required that substantially all water be kept from "contacting" mine waste, but that language was subsequently modified during the rulemaking process to prohibit substantially all water from "moving through or over" mine waste. Ex. 108. The Band's interpretation nullifies any material distinction between the original language and the final language, thereby failing to give effect to the modification. Likewise, the Band's interpretation would essentially preclude wet closure of reactive mine waste, which is also contrary to the intent of the rule. Ex. 106 at 14 ("The Department indicated

that prohibiting water cover was not intended. DNR did intend to preclude allowing water to come into contact with reactive mine waste ***and allowing leachate to move out into the environment***." (emphasis added)).[41]

In short, to give proper meaning to the rule's text and to accord with the overall rulemaking history, the final agency decision-maker should consider the amount of water seepage as compared to the overall water volume at issue when determining whether "substantially all" water is prevented from moving through or over the tailings. And "through" should be interpreted to refer to the movement of water beyond the tailings basin, not the internal movement of water within the tailings pore spaces.

## CONCLUSION

For the foregoing reasons, the final agency decision-maker should adopt the ALJ's Recommendations 1(a)-1(d) and 4. The final agency decision-maker should reject Recommendations 1(e), 2, 3, and 5. The final agency decision-maker should further hold that the bentonite amendment is a practical and workable reclamation technique that will satisfy the reactive mine waste rule.

[41] Because subpart 2(B)(2) focuses on water that escapes the storage environment (*i.e.*, tailings basin), water that contacts the exposed 30-inch layer of tailings on the beaches is not a relevant consideration, as such water is still contained within the tailings basin.

Dated this 30th day of August, 2024

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