OAH Docket No. 60-2004-37824

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

In the Matter of the NorthMet Project Permit to Mine Application	**Minnesota Department of Natural Resources' Exceptions and Argument Regarding ALJ Report**

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Pursuant to Minn. Stat. § 14.61, subd. 1, and the May 9, 2024, letter from the final agency decisionmaker, the team representing the Minnesota Department of Natural Resources ("DNR") in this proceeding ("Hearing Team")[1] respectfully submits the following exceptions and argument regarding the November 28, 2023, Findings of Fact, Conclusions of Law, and Recommendation of Administrative Law Judge James E. LaFave ("ALJ Report").

I. INTRODUCTION

This contested case pertains to a narrow and discrete aspect of PolyMet's[2] proposed copper-nickel mining project in northern Minnesota ("NorthMet Project" or "Project"). At a high level, PolyMet proposes applying bentonite to the dam sides, beaches, and pond bottom of the flotation tailings basin in order to reduce oxidation of and water seepage through the tailings.[3] The bentonite amendment will be used in conjunction with other engineering controls that are beyond the scope of this proceeding, including the seepage containment and wastewater treatment systems, to ensure that the tailings basin satisfies the reactive mine waste rule.

As set forth in DNR's Amended Notice and Order, the specific issue to be decided by the final agency decisionmaker is as follows:

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[1] All members of the Hearing Team have been walled off from the final agency decisionmaker in this proceeding.

[2] During the course of this proceeding, PolyMet notified the ALJ and the parties that "Poly Met Mining, Inc." is now known as "NewRange Copper Nickel LLC." The parties subsequently agreed to continue using the name "PolyMet" throughout this proceeding.

[3] Further background on the NorthMet Project, including the proposed bentonite amendment, is set forth in the Findings of Fact of the ALJ Report.

> Is the proposed bentonite amendment a "practical and workable" reclamation technique pursuant to Minn. Stat. § 93.481, subd. 2, that will reduce infiltration of oxygen and water into the stored tailings and satisfy the Reactive Mine Waste Rule, Minn. R. 6132.2200, subp. 2(B)? This issue encompasses the following five specific fact disputes:
>
> a. How bentonite would be applied to the tailings basin sides, beaches, and pond bottom to ensure its effectiveness in reducing infiltration of oxygen and water into the stored tailings over time?
> b. How should the application methods of the bentonite be evaluated or tested before application to ensure effectiveness in reducing infiltration of oxygen and water into the stored tailings?
> c. Would the pond-bottom, bentonite-amended cover be effective in maintaining a permanent pond that acts as a water cover over the stored tailings?
> d. Would any conditions in the pond result in a cation exchange that could reduce the effectiveness of the bentonite in reducing infiltration of oxygen and water into the stored tailings?
> e. How would PolyMet ensure bentonite's effectiveness in reducing infiltration of oxygen and water into the stored tailings over time?

OAH Official Record, OAH 60-2004-37824 PolyMet Official Record ("OAH Record"), at pp. 14352-53, Amended Notice and Order at ¶ 26; OAH Record at pp. 8-9, ALJ Report at 2-3. PolyMet contends that the bentonite amendment will be effective, is a practical and workable reclamation technique, and will satisfy the reactive mine waste rule. Petitioners contend the opposite on each issue.

After considering all the evidence, the ALJ found, as a factual matter, that the bentonite amendment can be successfully applied and will be effective in reducing oxygen and water infiltration into the tailings. The Hearing Team agrees with these core factual findings, as well as the overwhelming majority of the ALJ's other factual

findings. As explained below, the Hearing Team's exceptions regarding the ALJ's factual findings are limited to minor issues and are aimed at maintaining a clear and accurate record.

The Hearing Team's exceptions to the ALJ's legal conclusions are more substantial. The ALJ concluded that, despite bentonite's effectiveness, as a legal matter the bentonite amendment is not a practical and workable reclamation technique and will not satisfy the reactive mine waste rule. For the reasons explained herein, these conclusions are based on a misinterpretation and misapplication of the reactive mine waste rule. The Hearing Team recommends that the final agency decisionmaker find that the ALJ misinterpreted the rule and misapplied the rule to the facts. The Hearing Team further requests that the final agency decisionmaker properly apply the rule and issue an order concluding that the bentonite amendment is a practical and workable reclamation technique that satisfies the reactive mine waste rule. The Hearing Team also recommends that the final agency decisionmaker impose additional testing requirements to confirm that the bentonite amendment will work as anticipated, consistent with the ALJ's recommendation.

Aside from the instant proceeding regarding bentonite, DNR is separately considering two other issues regarding the permit to mine for the NorthMet Project: (i) the duration of the permit term; and (ii) which entities to include on the permit. Regardless of the ruling in this proceeding, the permit to mine cannot go into effect until these other issues are resolved because the permit term issue was remanded to the agency

by the Minnesota Supreme Court.[4] Thus, regardless of the final decision in this proceeding, the permit to mine remains on remand at DNR and cannot take effect until DNR issues a final decision on the permit term and named permittees.

II. FINDINGS OF FACT

A. The Hearing Team Agrees with the Vast Majority of the ALJ's Findings of Fact.

The ALJ's core findings of fact, directly addressing the five fact questions enumerated in the Amended Notice and Order, are as follows:

- "The bentonite amendment can be successfully applied to the Basin sides, beaches, and pond bottom." OAH Record at p. 9, ALJ Report at 3.
- "The bentonite-amended cover on the pond bottom would be effective in maintaining a permanent pond that acts as a water cover over the stored tailings." *Id.*
- "Cation exchange would not consequentially reduce the effectiveness of the bentonite in reducing infiltration of oxygen and water into the stored tailings." *Id.*
- "The bentonite amendment would be effective in reducing infiltration of oxygen and water into the stored tailings over time." *Id.*
- If the permit to mine is granted, special conditions should be imposed requiring testing to further confirm the bentonite amendment's effectiveness, as set forth in

[4] The Minnesota Supreme Court remanded to the agency to "conduct the contested case hearing required by this decision and, thereafter, to determine and fix the appropriate definite term for the permit to mine." *In re NorthMet Permit to Mine Application*, 959 N.W.2d 731, 738 (Minn. 2021) ("*NorthMet PTM*").

Section X of the Hearing Team's Proposed Findings of Fact and Recommendations. OAH Record at pp. 10, 19-21, 32, ALJ Report at 4, FOF ¶¶ 57-67, COL ¶ 12.[5]

The Hearing Team agrees with each of these core findings.

Given their bearing on the legal issues, the following findings, with which the Hearing Team also agrees, are particularly noteworthy:

- FOF ¶ 28: "PolyMet would apply bentonite to the dam sides in stages during construction of the tailings Basin dam, while the applications to the beaches and pond bottom (if needed) would occur during closure." OAH Record at p. 15.
    - This underscores the fact that bentonite will be used as a reclamation control, rather than an operational control. *See also* DNR Milestone Exhibits, 0715253, at p. 1089, Final Environmental Impact Statement ("FEIS") at 5-103 ("During Tailings Basin reclamation, the pond bottom and beaches would be covered with a bentonite layer to reduce the downward percolation from the pond, which would reduce the amount of water collected by the Tailings Basin containment system."); Ex. 219 at 0115592, Permit to Mine Findings of Fact ¶ 319 ("The basin will be built in lifts. This serves to promote progressive reclamation in that as each lift is completed, the side slope will be vegetated[.]"); *NorthMet PTM*, 959

[5] As used herein, "FOF" refers to the ALJ's Findings of Fact, and "COL" refers to the ALJ's Conclusions of Law.

N.W.2d at 752 (referring to the bentonite amendment as a "proposed plan for the 'reclamation or restoration' of the mining area").

- FOF ¶ 93: "Modeling for the NorthMet Project indicates that water quality standards would be met at an average hydraulic conductivity of 5.56 x 10^{-6} cm/sec for the dam sides and beaches and an average percolation rate of 6.5 inches per year for the pond bottom." OAH Record at p. 24.
- FOF ¶ 21: Bentonite's "purpose is to reduce water and oxygen infiltration enough to meet the modeled values for hydraulic conductivity and percolation." OAH Record at p. 14.
- COL ¶ 15: "The bentonite amendment is likely to achieve modeled values for hydraulic conductivity and percolation over time." OAH Record at p. 32.

These findings establish that the bentonite amendment is likely to meet the values for hydraulic conductivity and percolation that were used in the predictive models for NorthMet Project water quality.[6] At these values, the models indicate that water quality standards will be met. As explained below, these findings support a legal conclusion that bentonite is a practical and workable reclamation technique that will satisfy the reactive mine waste rule.

B. Exceptions to Findings of Fact

For the sake of clarity and accuracy, the Hearing Team takes exception to the following findings of fact and statements in the ALJ Report's Summary of the Case, none

[6] For further discussion of the water quality modeling, *see* DNR Milestone Exhibits, 0715253, at p. 1041 *et seq.*, FEIS at 5-55 *et seq.*

of which affect the core factual determinations regarding the application and effectiveness of the bentonite amendment.

1. OAH Record at p. 8, ALJ Report at 2: The ALJ states that the "waste rock" from the NorthMet Project "will be reactive, and it could release acid rock drainage that may seep into nearby surface or ground water. So PolyMet must handle the waste rock in compliance with Minnesota's Reactive Mine Waste Rule." It is important to clarify that waste rock is completely different from flotation tailings. While the NorthMet Project will generate waste rock at the mine site that is potentially acid-generating, it is the storage of flotation tailings at the plant site, not waste rock, that is the subject of this proceeding. *See* OAH Record at pp. 14352-53, Amended Notice and Order at ¶ 6; Ex. 219 at 0115577-78, Permit to Mine Findings of Fact ¶¶ 225-29 (describing waste rock generation and storage); *id.* at 0115578-79, ¶¶ 230-32 (describing tailings basin design and intent to satisfy reactive waste rule).[7] The flotation tailings are not expected to release "acid rock drainage." Ex. 74 at 93-95 (Radue Direct); Ex. 78 at 193-95 (Diedrich Direct).

2. OAH Record at p. 8, ALJ Report at 2: On a few occasions, the ALJ states that the bentonite will be mixed or infused with soil. This is inaccurate, as the bentonite will be mixed with tailings, not soil. Ex. 74 at 242-48 (Radue Direct).

3. OAH Record at p. 8, ALJ Report at 2: The ALJ states that "PolyMet intends to store the waste rock in a tailings basin—essentially a lake." There are two

[7] Reflective of the focus of this proceeding, to the Hearing Team's recollection there was no testimony on the characterization of waste rock.

inaccuracies with this statement. First, flotation tailings produced from ore processing, rather than waste rock, will be stored in the tailings basin. Ex. 74 at 69-76 (Radue Direct). Second, the tailings basin is an industrial facility and does not have the features of a natural lake.

4. OAH Record at p. 8, ALJ Report at 2: The ALJ inaccurately states that "PolyMet plans to grind the waste rock into sand and mix it with water to create a slurry." The waste rock is the result of blasting non-economic rock and removing it to access the ore body. Ex. 219 at 0115577, Permit to Mine Findings of Fact ¶ 225. The ore, not waste rock, is then ground to remove the target metals, and the resultant tailings are mixed with water to form a slurry. Ex. 74 at 69-72 (Radue Direct); Ex. 219 at 0115587, Permit to Mine Findings of Fact ¶ 289 n.9.

5. OAH Record at p. 11, FOF ¶ 5: The ALJ states that "PolyMet will mine the ore and then transport it, along with mine tailings, six miles by rail from the mine site to the LTV Plant, where the ore and tailings will be processed." While the ore will be transported to the processing plant, the tailings will not yet exist until the ore is processed at the plant. Ex. 219 at 0115526, Permit to Mine Findings of Fact ¶ 3.

6. OAH Record at pp. 13-14, FOF ¶ 17: The ALJ states that "bentonite has been used in covers of tailings and waste rock at several mining facilities, including in Minnesota." Although bentonite has been used at mining facilities in Minnesota, it was not used as a "cover" in the example provided in the record. Instead, bentonite was used in that example to decrease the permeability of a tailings basin sidewall. Tr. Vol. 2 at 187:6-25 (Hull).

III. CONCLUSIONS OF LAW

The Hearing Team takes exception to the following core legal conclusions from the ALJ Report:

- "The bentonite amendment is not a practical and workable reclamation technique." OAH Record at p. 9, ALJ Report at 3.
- The bentonite amendment will not satisfy either prong of the reactive mine waste rule:
    - "The bentonite amendment would not help ensure that the tailings are stored in a manner that renders them non-reactive, as required by Minn. R. 6132.2200, subp. 2(B)(1)." OAH Record at p. 10, ALJ Report at 4.
    - "The bentonite amendment would not help ensure that the NorthMet Project permanently prevents substantially all water from moving through or over the reactive tailings as required by Minn. R. 6132.2200, subp. 2(B)(2)." *Id.*

The Hearing Team agrees with the ALJ's conclusion that, if the permit is issued, it should include additional special conditions regarding testing, as more fully set forth in Section X of the Hearing Team's Proposed Findings of Fact and Recommendations and Section III.C below.

A. The Bentonite Amendment Is a Practical and Workable Reclamation Technique.

Minn. Stat. § 93.481, subd. 2, provides in relevant part:

> The commissioner in granting a permit with or without modifications shall determine that the reclamation or restoration planned for the

> operation complies with lawful requirements and can be accomplished under available technology and that a proposed reclamation or restoration technique is practical and workable under available technology.

Neither "practical" nor "workable" is defined by statute or rule. Thus, consistent with established case law and the rulemaking record, these terms should be given their ordinary meaning. *See In re Ali*, 938 N.W.2d 835, 839 (Minn. 2020); *NorthMet PTM*, 959 N.W.2d at 752 n.17; Ex. 336 at p. 5, Minn. R. ch. 6132 Statement of Need and Reasonableness ("SONAR") at 4 ("When a word or term is used in the proposed rules, and does not appear in this section, it shall be assumed to have the definition that is found in commonly used dictionaries.").

The ordinary meaning of "practical" is "relating to experience, real situations, or actions rather than ideas or imagination."[8] And the ordinary meaning of "workable" is "likely to do or achieve what is intended."[9] Taking these definitions together, 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 tailings basin. The ALJ properly adopted this definition. OAH Record at p. 31, COL ¶ 5.

As the ALJ found, the "purpose" of the bentonite 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 as the ALJ further found, the

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[8] "Practical," *Cambridge Dictionary*, https://dictionary.cambridge.org/us/dictionary/english/practical.

[9] "Workable," *Cambridge Dictionary*, https://dictionary.cambridge.org/us/dictionary/english/workable.

bentonite amendment is likely to achieve its purpose by meeting these modeled values. OAH Record at p. 32, COL ¶ 15. The logical conclusion stemming from these findings is that the bentonite amendment is "likely to achieve what is intended" and is therefore practical and workable.

Despite setting forth the proper definition of the term "practical and workable," the ALJ proceeded to analyze whether bentonite is "practical and workable" separate and apart from his factual determinations that bentonite will be effective and will achieve its purpose. The ALJ instead concluded that the bentonite amendment is not "practical and workable" because the reactive mine waste rule will not be satisfied. OAH Record at p. 31, COL ¶ 9. For the reasons explained in the following sections, the reactive mine waste rule will be satisfied. Thus, even if bentonite's practicality and workability hinges on compliance with the reactive mine waste rule, the bentonite amendment still is practical and workable.

B. The Reactive Mine Waste Rule Will Be Satisfied.

The purpose 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. Subpart 2 of the rule further provides:

> **Requirements.** A mining operation must meet the requirements in items A to D.
>
> …
>
> > B. A reactive mine waste storage facility must be designed by professional engineers registered in Minnesota proficient in the design, construction, operation, and reclamation of facilities for the storage of reactive mine waste, to either:

> (1) modify the physical or chemical characteristics of the mine waste, or store it in an environment, such that the waste is no longer reactive; or
> (2) during construction to the extent practicable, and at closure, permanently prevent substantially all water from moving through or over the mine waste and provide for the collection and disposal of any remaining residual waters that drain from the mine waste in compliance with federal and state standards.

Minn. R. 6132.2200, subp. 2. By using the disjunctive "or" between subparts 2(B)(1) and 2(B)(2), the rule indicates that compliance can be achieved through satisfaction of either subpart. The ALJ concluded that the NorthMet Project satisfies neither subpart and therefore does not satisfy the rule. The Hearing Team disagrees and believes that both subparts are satisfied, either one of which is sufficient to satisfy the rule.

1. The Bentonite Amendment Will Help Ensure that the Tailings Are Stored in an Environment such that They Are No Longer Reactive.

Subpart 2(B)(1) of the reactive mine waste rule is satisfied if the waste facility is designed to "modify the physical or chemical characteristics of the mine waste, or store it in an environment, such that the waste is no longer reactive." Minn. R. 6132.2200, subp. 2(B)(1). The disjunctive "or" indicates that this subpart may be satisfied through proper storage even if the mine waste's physical or chemical characteristics are not modified. As regards the NorthMet Project, PolyMet intends to store its mine waste (*i.e.*, flotation tailings) in an environment, so that it is no longer reactive, by (i) storing the tailings in a tailings basin, (ii) applying the bentonite amendment to reduce oxidation of

and seepage through the tailings, and (iii) using the seepage containment and wastewater treatment systems to treat residual seepage.[10]

The definition of "reactive mine waste" is the starting point for determining whether the tailings will be stored such that they are not reactive. "Reactive mine waste" is "waste that is shown through characterization studies to ***release*** substances that ***adversely impact natural resources***." Minn. R. 6132.0100, subp. 28 (emphasis added). "Adversely impact natural resources" is, in turn, defined as "an unacceptable level of impact on the natural resources as determined by the commissioner based on an evaluation which considers the value of the resource and the degree of impact." Minn. R. 6132.0100, subp. 3. The rules do not define "unacceptable," and the ordinary meaning of that word is "too bad to be accepted, approved of, or allowed to continue."[11] The rules do not define "release," and that term is ordinarily defined as "to allow a substance to flow out from somewhere."[12]

Taking all of these terms together, mine waste remains reactive if substances flow out from the waste, beyond the environment in which it is stored, and cause impacts to natural resources that the commissioner determines are unacceptable. Conversely, the rule is satisfied if mine waste is stored in an environment such that substances do not

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[10] As noted above, the efficacy of the seepage containment and wastewater treatment systems is beyond the scope of this proceeding. OAH Record at pp. 14-15, FOF ¶ 23; OAH Record at pp. 14349-50, Amended Notice and Order at ¶¶ 14, 17.

[11] "Unacceptable," *Cambridge Dictionary*, https://dictionary.cambridge.org/us/dictionary/english/unacceptable.

[12] "Release, "Cambridge Dictionary, https://dictionary.cambridge.org/us/dictionary/english/release.

flow out from the storage environment and cause impacts to natural resources that the commissioner determines are unacceptable. The rule grants the commissioner considerable discretion as to what constitutes "unacceptable" impacts. The Hearing Team believes it is reasonable to peg the acceptability threshold to environmental quality standards, such that impacts are unacceptable if they result in violations of environmental quality standards outside the storage environment. As pertains to the NorthMet Project, impacts are unacceptable if they result in violations of water quality standards outside the environment in which the mine waste is stored—*i.e.*, outside the tailings basin.[13]

The bentonite amendment is designed to reduce tailings oxidation and water seepage through the tailings, OAH Record at pp. 14, 21, FOF ¶¶ 22, 71, and the seepage containment and wastewater treatment systems are designed to capture and treat the

[13] It appears the ALJ thought the Hearing Team was arguing that water is the only natural resource protected by the reactive mine waste rule. OAH Record at p. 40, ALJ Report at 34 ("[E]ven if the DNR's interpretation is correct, and only compliance with water quality standards is required under Subpart 2(B)(1), . . ."); *id.* ("The natural resources to be protected are not limited to Minnesota's waters."). This is a misunderstanding of the Hearing Team's position. DNR is responsible for ensuring that the design of the NorthMet Project will protect *all* natural resources, including but not limited to water. *See* Minn. R. 6132.0100, subp. 21. However, the relevant natural resources implicated by a given facility will depend on the specific facts, as different aspects of different facilities will likely pose threats to different types of resources. *See* Ex. 336 at p. 9, SONAR at 8 ("The actual reclamation, conducted at a given mine, will have to be custom designed to account for each site and operation's uniquely specific characteristics."). With respect to the NorthMet tailings basin, water is the medium by which mine waste constituents could potentially be released to the surrounding environment, and the bentonite amendment is designed to help prevent releases at levels that violate water quality standards. *See* Ex. 206.00 at 16:11-20 (Benson Direct); Ex. 202.00 at 11:5-13 (Kuipers Direct); Ex. 74 at 150-57 (Radue Direct). Thus, while the reactive mine waste rule protects all natural resources on its face, water is the focal point of this proceeding due to the specific facts at issue here.

remaining seepage, OAH Record at pp. 14-15, FOF ¶ 23. Working together, these engineering controls are designed to prevent the release of substances, beyond the tailings basin, that have an unacceptable impact on natural resources—*i.e.*, the engineering controls are designed to prevent the release of substances beyond the tailings basin in violation of environmental quality standards.

As the ALJ properly found: "The bentonite amendment is likely to achieve modeled values for hydraulic conductivity and percolation over time." OAH Record at p. 32, COL ¶ 15. And "[m]odeling for the NorthMet Project indicates that water quality standards would be met" outside the tailings basin at these values. OAH Record at p. 24, FOF ¶ 93.[14] The necessary conclusion stemming from these factual findings is that bentonite will help ensure that water quality standards are met outside the tailings basin. As a result, the proposed reclamation plan will prevent the tailings from releasing substances that cause unacceptable impacts to natural resources. Based on this straightforward record evidence, the bentonite amendment satisfies subpart 2(B)(1) of the reactive mine waste rule.

[14] Similarly, the FEIS extensively analyzed water quality impacts and explained that the "water quality model predicts that the [Project] would not cause any significant water quality impacts." DNR Milestone Exhibits, 0715253, at pp. 101, 995, FEIS at ES-35, 5-9.

a. The ALJ Erroneously Considered Water Quality for the Entire Project and Permits Pending Before Other Agencies in Determining Whether Bentonite Modifies the Physical or Chemical Characteristics of the Mine Waste, or Stores It in an Environment, such that the Waste Is No Longer Reactive.

The ALJ rejected the Hearing Team's interpretation of subpart 2(B)(1) and instead concluded that "a waste is no longer reactive if, as a result of its storage, it ceases to release the substances that made it reactive in the first place into natural resources." OAH Record at p. 40, ALJ Report at 34. The ALJ's interpretation encompasses only the modification prong of subpart 2(B)(1) and therefore fails to account for the other prong—storage of mine waste in an environment such that it is no longer reactive. The Hearing Team's interpretation, by contrast, gives meaning to the full text of the rule.

The ALJ also erred in his analysis of impacts to water quality. Instead of examining the record in *this* proceeding to determine whether bentonite will help ensure that the tailings basin is reclaimed in a manner that avoids unacceptable impacts to water quality, the ALJ looked to *separate* proceedings involving other agencies to conclude that the Project *as a whole* will not satisfy water quality standards *throughout the life of the Project*. The ALJ's task was not to analyze the Project as a whole; his task was to analyze the role of bentonite as a reclamation technique in satisfying the reactive mine waste rule for the flotation tailings basin. By relying on the status of other permits issued by different agencies, the ALJ improperly bootstrapped other agencies' permitting processes onto DNR's reclamation-oriented reactive mine waste rule. If followed, the

ALJ's recommendation would greatly impair DNR's ability to process applications under its own permitting rules.

The statute governing DNR's oversight of mining, Minn. Stat. §§ 93.44-93.51, is called the Mineland Reclamation Act, and it implements the state policy "to provide for the reclamation" of mining lands. Minn. Stat. § 93.44. The specific statutory provision at issue here requires that "a proposed reclamation or restoration technique"—in this case bentonite—be "practical and workable under available technology." Minn. Stat. § 93.481, subd. 2. In accord with the Mineland Reclamation Act, DNR has adopted a set of reclamation standards for nonferrous metallic mineral mining, including the reactive mine waste rule. Minn. R. ch. 6132; *see also* Ex. 336 at p. 3, SONAR at 2 ("The implementation of these rules will provide for the reclamation of lands disturbed by nonferrous mining activities, returning them to a safe, productive, and environmentally sound condition.").

In light of the statutory and regulatory framework, the purpose of this proceeding is to determine whether the bentonite amendment is a "'practical and workable' reclamation technique" that will satisfy the reactive mine waste rule. *See* OAH Record at p. 8, ALJ Report at 2; OAH Record at pp. 14352-53, Amended Notice and Order at ¶ 26; *NorthMet PTM*, 959 N.W.2d at 754. As explained above, the record—and the ALJ's own factual findings—support a conclusion that bentonite will reduce water and oxygen infiltration such that water quality standards are met outside the tailings basin. OAH Record at p. 24, FOF ¶ 93; OAH Record at p. 32, COL ¶ 15. As a result, there will not be

unacceptable impacts to natural resources, which means the tailings will be stored in a manner such that they are no longer reactive, in satisfaction of subpart 2(B)(1).

Rather than base his legal conclusions on this factual record evidence, the ALJ concluded that the reactive mine waste rule will not be satisfied due to uncertainty regarding separate permits under the purview of the Minnesota Pollution Control Agency ("MPCA") and the U.S. Army Corps of Engineers ("Corps"). Neither of these permits pertains to bentonite, tailings storage, or reclamation, which means they are plainly beyond the scope of this proceeding. In addition to improperly considering these separate permits in the first place, the ALJ compounded his error by misinterpreting both the Corps' permitting decision and a judicial decision regarding MPCA's permit.

(1) The ALJ Misinterpreted and Misapplied the Corps' Revocation of a Section 404 Permit.

In June 2023, the Corps revoked a permit allowing PolyMet to dredge and fill wetlands at the mine site pursuant to Section 404 of the Clean Water Act. *See* OAH Record at p. 1276 *et seq*. This revocation was based on concerns about the mine pit during construction and operations, not the storage of mine waste (*i.e.*, tailings) at the plant site during reclamation. Notably, the mine pit is in a separate location eight miles from the plant site and tailings basin. Ex. 219 at 0115527, Permit to Mine Findings of Fact ¶ 6. The Corps was concerned that dewatering the mine pit would alter the hydrology of up to 6,000 acres of wetlands and thus enhance mercury methylation. OAH Record at pp. 1278-79. The Corps was also concerned with activities at the mine site including the loss of forested wetlands causing loading of specific conductance. OAH

Record at pp. 1279, 1298. In short, the revocation of the Section 404 permit does not pertain to the use of bentonite or the storage of tailings. Thus, the revocation of the Section 404 permit is irrelevant to this proceeding, and the ALJ erred in considering it.

Moreover, the ALJ incorrectly concluded that the Corps' decision indicates that the NorthMet Project will not meet water quality standards. OAH Record at p. 41, ALJ Report at 35. Although the Corps revoked the Section 404 permit in light of its concerns about downstream water quality, the Corps, in reaching its revocation decision, did not opine on the Project's predictive water-quality modeling and did not determine that the Project could not meet water quality standards. Instead, the Corps specifically noted that its revocation order "does not preclude PolyMet from submitting a new CWA Section 404 permit application that will meet all applicable water quality requirements for its project." OAH Record at p. 1300.

(2) The ALJ Misinterpreted and Misapplied a Judicial Decision Regarding MPCA's NPDES/SDS Permit.

In August 2023, the Minnesota Supreme Court issued a decision remanding MPCA's NPDES/SDS permit that had previously been issued pursuant to Section 402 of the Clean Water Act and the State's State Disposal System. *In re Denial of Contested Case Hearing Requests & Issuance of Nat'l Pollutant Discharge Elimination Sys. / State Disposal Sys. Permit No. MN0071013*, 2023 Minn. LEXIS 379 (Minn. Aug. 2, 2023) ("*NorthMet NPDES*"). For several reasons, this decision has no bearing on DNR's analysis under the reactive mine waste rule, which looks to the role of bentonite in the tailings basin during reclamation.

First, the NPDES/SDS permit is aimed at point source wastewater discharges over a five-year period during the Project's operations, not the impacts of tailings storage during reclamation and closure.

Second, the litigation over the NPDES/SDS permit does not implicate the predictive modeling on which DNR relied.

Third, the ALJ is incorrect in his suggestion that the Court concluded that the Project would not meet water quality standards. OAH Record at p. 41, ALJ Report at 35. To the contrary, the Court remanded for EPA comments due to "procedural irregularities," without opining on the permit's substantive compliance with the Clean Water Act. *NorthMet NPDES*, at *63 ("[O]ur remand is narrowly tailored to remedying the procedural irregularities and resulting deficiencies in the administrative record, which prevent us from resolving the substantive issues that appellants have raised on appeal."). The Court's only substantive decision was that MPCA's groundwater rule, Minn. R. 7060.0600, applies to groundwater contained within the tailings basin seepage containment system, and that MPCA must determine on remand whether to grant a variance for pollution of such groundwater. *Id.* at *70-74. Because that issue is about groundwater within the seepage containment system (prior to capture and treatment), it is irrelevant to the reactive waste rule, which is aimed at preventing "adverse impacts on natural resources" beyond the "environment" in which the waste is "stored." Minn.

R. 6132.2200, subp. 1. It is adverse impacts beyond the tailings basin, rather than impacts within the basin, that are "unacceptable" to the commissioner.[15]

* * *

Yet another problem with looking to the MPCA and Corps permits is that the timing of those permits does not align with reclamation. MPCA's NPDES/SDS permit has a term of only five years,[16] and the Corps' Section 404 permit was set to expire in 2034.[17] Reclamation and the coinciding bentonite amendment, on the other hand, are expected to commence during operations and continue into closure after the mine's twenty-year life of operations. OAH Record at pp. 10, 15, FOF ¶¶ 3, 28.

In sum, it was improper for the ALJ to assess the reactive mine waste rule based on the status of other permits that are under the jurisdiction of different agencies, that are governed by different statutory and regulatory frameworks, that do not pertain to bentonite or reclamation, and that operate on very different time horizons. The final

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[15] Unlike the reactive mine waste rule, MPCA's groundwater rule does not contain an unacceptable-impact qualifier. Thus, the Supreme Court in *NorthMet NPDES* did not pass judgment on whether discharges to the groundwater within the tailings basin constitute an unacceptable impact to natural resources. In fact, the Court suggested that the seepage containment system may be beneficial to the natural resources beyond the facility, but that a variance is nonetheless needed. *See NPDES/SDS*, 2023 Minn. LEXIS 379, at *66 ("because the new containment system will surround existing waste, the system will reduce current pollution *outside* of the system" (emphasis in original)); *id.* at *73 ("the containment systems will reduce pollution outside of the systems").

[16] *See* 40 C.F.R. § 122.46(a) ("NPDES permits shall be effective for a fixed term not to exceed 5 years.").

[17] https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/PolyMet/NorthMet%20Permit%20-%20Corps%20of%20Engineers.pdf.

agency decisionmaker should not follow the ALJ but should instead make a decision on the record in this proceeding. That record indicates that the bentonite amendment will achieve a hydraulic conductivity and percolation rate that satisfies water quality standards beyond the tailings basin and therefore prevents adverse impacts to natural resources.

b. By Relying on Other Permits Issued by Other Agencies, the ALJ's Interpretation Severely Undermines DNR's Role in Mine Permitting.

Aside from being legally erroneous, the ALJ's conflation of the reactive mine waste rule with permits issued by other agencies presents a serious institutional dilemma. The ALJ rooted his analysis of the reactive mine waste rule in the status of other agencies' permits and concluded that the "analysis of this issue could change" if PolyMet later obtains the requisite permits from MPCA and the Corps. OAH Record at p. 41, ALJ Report at 35. This suggests that DNR may not determine that the reactive mine waste rule is satisfied, and therefore may not issue a permit to mine, until a permittee has obtained all necessary water permits from MPCA and the Corps. Such an outcome undermines legislative intent by making the DNR permitting process subservient to that of the Corps and MPCA. By tasking DNR with "promoting the orderly development of mining" while "control[ling] possible adverse environmental effects of mining," Minn. Stat. § 93.44, the legislature did not intend for DNR to take a back seat to other agencies. Likewise, nothing in DNR's regulations suggests that DNR must wait for other agencies to act before proceeding with the permitting of mining projects. DNR is an independent agency whose permitting decisions are not contingent on the decisions of another federal or state agency. Thus, while DNR works closely with other state, federal and local

government entities in the permitting process, Minnesota law does not provide that all required permits must be issued simultaneously, or that all other permits must be issued before DNR issues a permit to mine.[18]

To be sure, the Hearing Team's position does not mean that DNR is undermining the permitting authority of other agencies. To the contrary, the permit to mine expressly provides that it does not waive the permit requirements of any other federal, state, or local unit of government, including an NPDES/SDS permit from MPCA and a Section 404 dredge-and-fill permit from the Corps. *See* Ex. 220 at 0115736, 0115739, Permit to Mine at 2 (General Conditions), 5 (¶ 13a). Thus, even if a permittee holds a permit to mine, the permittee may not proceed to mine and process ore without obtaining the other necessary federal, state, and local permits. As a further safeguard, DNR also has the authority to modify the permit to mine if necessary based on new information that arises after permit issuance. Minn. R. 6132.4300.

In short, there is no hierarchy of permits under which DNR's issuance of a permit to mine hinges on other permits from other agencies. DNR should independently consider the reactive mine waste rule under its own regulatory framework, and the permit to mine ensures that PolyMet may not proceed until it obtains all necessary permits. This approach gives import to all permitting processes without paralyzing DNR. The final agency decisionmaker should reject the ALJ's interpretation and refrain from interjecting

[18] Even Petitioners appear to acknowledge DNR's independent permitting authority. *See, e.g.*, OAH Record at p. 1489 (Fond du Lac Band arguing that "DNR's obligations to protect the waters of the State are defined in other statutes and are independent from MPCA's authority to enforce water quality standards.").

the MPCA's and the Corps' permitting requirements into DNR's separate permitting process for mineland reclamation.

2. The Bentonite Amendment Will Help Ensure that the NorthMet Project Prevents Substantially All Water from Moving through or over the Tailings and Provides for the Collection and Disposal of any Residual Waters that Drain from the Tailings in Compliance with Federal and State Standards.

Subpart 2(B)(2) of the reactive mine waste rule is satisfied if the facility is designed to "permanently prevent substantially all water from moving through or over the mine waste and provide for the collection and disposal of any remaining residual waters that drain from the mine waste in compliance with federal and state standards." Minn. R. 6132.2200, subp. 2(B)(2). Two critical phrases in this rule are "through or over" and "substantially all," neither of which is defined in the rules. The ordinary definitions of the words "through" and "over" are similar, with "through" meaning "from one end or side of something to the other,"[19] and "over" meaning "across from one side to the other, especially by going up and then down."[20] Thus, the phrase "through or over" indicates that the rule pertains to water that moves beyond the tailings basin, rather than the presence or movement of water within the tailings basin.

As for "substantially all," the ordinary meaning of "substantial" is "large in size, value, or importance" or "relating to the main or most important things being

[19] "Through," *Cambridge Dictionary*, https://dictionary.cambridge.org/us/dictionary/english/through.

[20] "Over," *Cambridge Dictionary*, https://dictionary.cambridge.org/us/dictionary/english/over.

considered."[21] And the ordinary meaning of "all" is "every one (of), or the complete amount or number (of), or the whole (of)."[22] "Substantially all" therefore connotes a high percentage of the whole, but less than one hundred percent. This is consistent with case law interpreting the term "substantially all" in other contexts. *See, e.g.*, *Kforce Flexible Solutions, LLC v. Dep't of Empl. & Econ. Dev.*, A06-601, 2007 Minn. App. Unpub. LEXIS 226, at *6-7 (Mar. 6, 2007) (referencing a Minnesota rule defining "substantially all the assets" to mean "at least 70 percent of the market value of the assets"); *Continental Can Co. v. Chicago Truck Drivers, Helpers & Warehouse Workers Union Pension Fund*, 916 F.2d 1154, 1158 (7th Cir. 1990) (referencing various federal tax provisions for which "substantially all" means 85% or more); *Central States, Southeast & Southwest Areas Pension Fund v. Robinson Cartage Co.*, 864 F. Supp. 748, 750 n.3 (N.D. Ill. 1994) ("Although the statute does not define 'substantially all,' the Seventh Circuit has defined it as 85% or more.").

With respect to the NorthMet tailings basin, water seepage projections during closure are as follows:

- 160 million gallons per year seeping from the pond, compared to 2.17 billion gallons stored in the pond (7.4%);

[21] "Substantial," *Cambridge Dictionary*, https://dictionary.cambridge.org/us/dictionary/english/substantial.

[22] "All," *Cambridge Dictionary*, https://dictionary.cambridge.org/us/dictionary/english/all.

- 73 million gallons per year seeping from the beaches, compared to 1.51 billion gallons stored in the beaches (4.8%); and
- 65 million gallons per year seeping from the dam sides, compared to 520 million gallons stored in the dam sides (12.5%).

Tr. Vol. 2 at 113:21–117:5 (Radue); Ex. 81. Summing these numbers together, 298 million gallons per year are projected to seep through the tailings (but not through the seepage containment system),[23] as compared to a total of 4.2 billion gallons stored in the pond, beaches, and dam sides. That means only 7.1% of water in the basin pond, beaches and dam sides is projected to seep through or over the tailings, while 92.9% is projected not to seep through or over the tailings.[24] Although the Hearing Team does not advocate for a particular percentage definition for the term "substantially all," 92.9% is well above the threshold that is normally considered sufficient to constitute "substantially all." *Kforce Flexible Solutions*, Minn. App. Unpub. LEXIS 226 at *6-7 (70 percent); *Continental Can Co.*, 916 F.2d at 1158 (85 percent); *Central States*, 864 F. Supp. at 750 (85 percent).

[23] The seepage containment and wastewater treatment systems are designed to capture and treat seepage prior to release to the environment. While the ALJ notes these systems in the findings of fact, OAH Record at pp. 14-15, FOF ¶ 23, he does not account for them in his memorandum analysis of subpart 2(B)(2). The ALJ instead states that the seepage "will move through or over those reactive tailings and then out of these areas to emerge at the Basin dam toe." OAH Record at p. 44, ALJ Report at 38. This suggests that the ALJ is operating under the grossly erroneous assumption that 298 million gal/yr of *untreated* wastewater will be released from the facility.

[24] Counting the estimated 32.18 billion gallons of water in the tailings basin below the pond, Ex. 81, the percentage of seepage is an even smaller 0.82%, with 99.18% remaining stored in the tailings basin.

The ALJ misapplied these seepage projections when assessing compliance with subpart 2(B)(2). In particular, the ALJ ignored the *percentage* of water projected to seep through the tailings and instead focused on the *absolute volume* of seepage, concluding that "298 million gallons is an enormous amount of impaired water." OAH Record at p. 43, ALJ Report at 37; *see also id.* ("Petitioners maintain that focusing on the percentage of stored water that will seep from the Basin obscures the real issue, which is the total amount of water that will go over or through the mine waste. . . . The Administrative Law Judge agrees.").[25] This focus on absolute volume is improper, as the term "substantially all" is meaningless without a baseline, as connoted by the term "all," against which to compare the amount of seepage. The case law firmly supports the principle that "substantially all" is a relative, as opposed to an absolute, term. *See Kforce Flexible Solutions*, Minn. App. Unpub. LEXIS 226 at *6-7; *Continental Can Co.*, 916 F.2d at 1155 ("Arbitrators and courts must convert this phrase to a percentage in order to make it work[.]"); *United States Bank Nat'l Ass'n ex rel. Holders of Seven & One Half Percent Senior Convertible Notes v. Angeion Corp.*, 615 N.W.2d 425, 432-33 (Minn. Ct. App. 2000) ("the record is not sufficiently developed for a determination whether Angeion transferred all or ***substantially all*** of its assets" because there is no record evidence as to "***what percentage*** of operating revenue, operating profit, or book value the patents represented" (emphasis added)); *Smothers v. United States*, No. 75-C-1, 1979

[25] Although immaterial given that the proper focus is not on absolute volume of water, the ALJ appears to make a computational error in concluding that 298 million gallons per year over 500 years would result in 408.975 billion gallons of total seepage. OAH Record at p. 44, ALJ Report at 38. 298 million x 500 = 149 billion.

U.S. Dist. LEXIS 14946, at *10 (S.D. Tex. Jan. 22, 1979) ("The phrase 'substantially all' is relative, and its application depends upon the facts of each situation."); *Moffatt v. Commissioner*, 42 T.C. 558, 578 (Tax Ct. 1964) ("We note preliminarily that the term 'substantially all' is a relative term, dependent on the facts of any given situation." (cleaned up; internal quotations and citation omitted)).

DNR could have promulgated a rule with an absolute-volume limit if that was the agency's intent when adopting the reactive mine waste rule. That the rule uses the term "substantially all," as opposed to an absolute-volume limit, reflects a need for flexibility given that different types of facilities will result in different amounts of water use and seepage. *See* Minn. R. 6132.0200 ("Because of the unique character of each mining operation and the extreme diversity of the possible types and sizes of operations, specific permit requirements shall be established within the framework established by parts 6132.0100 to 6132.5300."); Ex. 336 at p. 9, SONAR at 8 (noting the need for flexibility and custom designs when considering reclamation for a particular facility).

In addition to improperly focusing on the absolute volume of seepage, the ALJ made use of two inapt comparisons—swimming pools and tanker trucks—which he deemed to provide "helpful" "context." OAH Record at p. 43, ALJ Report at 37.[26] Comparing a tailings basin to recreational or vehicular water sources is awkward and misleading, as it ignores the scale of facilities involving mining or other water-intensive operations. In context, 298 million gallons is not an inordinately large amount of water.

[26] To the Hearing Team's recollection, none of the record evidence discussed swimming pools or tanker trucks.

For example, 298 million gallons a year is comparable to the water supply of a small town of about 5,000 people, a commercial sand and gravel operation, or several golf courses.[27]

The NorthMet Project's overall water use provides further context for the quantities of water at issue. In conjunction with the permit to mine, DNR previously issued six water appropriation permits for the NorthMet Project. Those permits allow for water appropriations as follows:

- East Pit dewatering: 1000 million gal/yr[28]
- Central Pit dewatering: 700 million gal/yr[29]
- West Pit dewatering: 800 million gal/yr[30]
- Mine processing and mine site infrastructure: 1200 million gal/yr[31]

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[27] *See* "Water Use Data – 1988 to 2022" Spreadsheet, Row 64 (showing permitted volume of 250 million gal/yr for the water supply of the City of Redwood Falls), https://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/wateruse.html; https://en.wikipedia.org/wiki/Redwood_Falls,_Minnesota (indicating Redwood Falls had a 2020 population of 5,102); Water Use Data Spreadsheet, Row 146 (showing permitted volume of 300 million gal/yr for Rock Ridge Resources' sand and gravel washing); Water Use Data Spreadsheet, Rows 114, 161, 197, 292 (showing permitted volumes of 60 million gal/yr, 100 million gal/yr, 55 million gal/yr, and 55 million gal/yr respectively for golf course irrigation).

[28] Available at https://files.dnr.state.mn.us/lands_minerals/northmet/water-approp/amended-permit-2016-1363.pdf.

[29] Available at https://files.dnr.state.mn.us/lands_minerals/northmet/water-approp/amended-permit-2016-1364.pdf.

[30] Available at https://files.dnr.state.mn.us/lands_minerals/northmet/water-approp/amended-permit-2016-1365.pdf.

[31] Available at https://files.dnr.state.mn.us/lands_minerals/northmet/water-approp/amended-permit-2016-1367.pdf.

- Mine processing and mine site infrastructure: 450 million gal/yr[32]
- Colby Lake dewatering: 1800 million gallons per year[33]

Taken together, these water appropriation permits authorize PolyMet to appropriate a total of 5.95 billion gallons per year. The estimated seepage of 298 million gallons per year within the tailings basin constitutes only five percent of the Project's total appropriated water.

In sum, the reactive mine waste rule's use of the term "substantially all" requires a comparison of seepage against the baseline amount of water involved. When compared to the total water in the tailings basin and in light of the large amounts of water used in mining projects, "substantially all" water is expected to be prevented from seeping through the NorthMet tailings, and the seepage containment and wastewater treatment systems are designed to capture and treat the "residual" water that does move through or over the tailings.[34] This is sufficient to satisfy subpart 2(B)(2) of the rule.

Finally, the ALJ's interpretation of the reactive mine waste rule poses serious problems for DNR's regulation of non-ferrous mine tailings facilities more broadly,

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[32] Available at https://files.dnr.state.mn.us/lands_minerals/northmet/water-approp/amended-permit-2016-1369.pdf.

[33] Available at https://files.dnr.state.mn.us/lands_minerals/northmet/water-approp/amended-permit-2017-0260.pdf.

[34] As explained in Section III.B.1 above, modeling indicates that the bentonite amendment will achieve a hydraulic conductivity and percolation rate that satisfies water quality standards, and the permit to mine prohibits commencement of relevant operations unless and until PolyMet obtains other permits aimed at ensuring compliance with water quality standards. Thus, the tailings basin is designed to treat residual seepage "in compliance with federal and state standards." Minn. R. 6132.2200, subp. 2(B)(2).

separate and apart from the NorthMet Project. DNR is unsure as to what facilities could be permitted if the ALJ's interpretation of the rule were adopted.

C. The Final Agency Decisionmaker Should Impose Special Conditions Regarding Testing.

The ALJ concluded: "If the Permit to Mine is reissued, it should be subject to the special conditions in the original Permit to Mine (Nov. 1, 2018) and the Department's additional or revised special conditions set forth in the Department's Proposed Findings of Fact, and Recommendations." OAH Record at p. 32, COL ¶ 12. The Hearing Team agrees, with the caveat that the original special conditions should be modified as set forth in Section X of the Hearing Team's Proposed Findings of Fact and Recommendations.[35]

In its exceptions brief filed on May 31, 2024, PolyMet requested that the final agency decisionmaker reject or modify a few discrete provisions in the revised special conditions. The Hearing Team responds to PolyMet's requests as follows:

- The Hearing Team opposes PolyMet's request to modify the proposed requirement for large-scale field testing. The revised conditions call for "[l]aboratory, bench, and field scale testing, sampling, and analyses necessary to confirm ***to DNR's satisfaction***" that the bentonite amendment will perform as intended. OAH Record at pp. 1369-70, 1372 (Conditions 88(1), 89a(1), 89d(1)) (emphasis added). This language provides flexibility and allows DNR to address situations where certain types of

[35] Section X of the Hearing Team's Proposed Findings of Fact and Recommendations is located at OAH Record, at pp. 1368-74.

testing may be impossible or infeasible. Thus, by calling for field-scale testing, the revised conditions do not rigidly require impossible or infeasible tests.

In further recognition of the flexibility regarding the particulars of a given test, the revised conditions call for field scale testing "with surrogate tailings ***or otherwise***." OAH Record at pp. 1369, 1373 (Conditions 88(6), 89d(7)) (emphasis added). The conditions also identify LTV tailings as an *example* of possible surrogates, not as an express *requirement*. OAH Record at pp. 1369, 1372 (Conditions 88(3), 89d(3)). The Hearing Team agrees with PolyMet that LTV tailings do not have the same chemical composition of NorthMet tailings. However, the purpose of surrogate testing is not to evaluate a chemical response but rather to evaluate the physical response of how similarly sized particles could work with bentonite to impede flow.

- For purposes of clarification, the Hearing Team is amenable to PolyMet's request to modify the last sentence of Conditions 89c and 89f by including the prefatory clause "If needed based on this condition."
- The Hearing Team opposes PolyMet's request to modify Condition 89d by omitting the reference to "blending prior to spigotting tailings onto the beach." This condition already incorporates flexibility by requiring the workplan to include the referenced materials "as appropriate."

- The Hearing Team is amenable to PolyMet's request to modify Condition 89g to clarify the time by which PolyMet must submit a revised adaptive management plan. The Hearing Team proposes modifying the revised Condition 89g as follows:

  Within 60 days of the approval of each bentonite amendment workplan results (side slopes, tailings pond beaches, and tailings pond bottom), the Permittee must submit to the DNR for review and approval, after requested revisions are incorporated, a corresponding bentonite amendment adaptive management plan that describes the action or actions that would be implemented if water quantity, water quality, or dam safety objectives are not met through the use of bentonite. ~~Each bentonite amendment adaptive management plan must be revised as needed to receive DNR approval by March 31 of the year following its submittal.~~ *The dam side slope bentonite amendment adaptive management plan must be revised as needed and approved by DNR 30 days prior to tailings dam construction. The basin beaches and pond bottom bentonite amendment adaptive management plans must be revised as needed and approved by DNR prior to the start of ore processing.*

IV. RECOMMENDATIONS

The Hearing Team takes the following position on each of the ALJ's recommendations:

- Subject to the minor exceptions noted in Section II, the final agency decisionmaker should adopt the findings of fact and Recommendations 1(a)-(d) from the ALJ Report.
- The final agency decisionmaker should not adopt Recommendation 1(e) from the ALJ Report. Instead, the final agency decisionmaker should issue a final decision concluding that the proposed bentonite amendment is a practical and workable reclamation technique.

- The final agency decisionmaker should not adopt Recommendation 2 from the ALJ Report. Instead, the final agency decisionmaker should issue a final decision concluding that the bentonite amendment complies with Minn. R. 6132.2200, subp. 2(B)(1), because it would help ensure that the tailings are stored in an environment such that they are not reactive.
- The final agency decisionmaker should not adopt Recommendation 3 from the ALJ Report. Instead, the final agency decisionmaker should issue a final decision that the bentonite amendment complies with Minn. R. 6132.2200, subp. 2(B)(2), because it would help ensure that the NorthMet facility permanently prevents substantially all water from moving through or over the tailings and provides for the collection and disposal of any residual waters that drain from the tailings in compliance with federal and state standards.
- The final agency decisionmaker should adopt Recommendation 4 from the ALJ Report. More specifically, the final agency decisionmaker should impose special conditions as set forth in Section X of the Hearing Team's Proposed Findings of Fact and Recommendations, with minor modifications as noted in Section III.C above.
- The final agency decisionmaker should not adopt Recommendation 5 from the ALJ Report.

V. CONCLUSION

For the foregoing reasons, the Hearing Team recommends that the final agency decisionmaker issue an order (i) adopting the ALJ's findings of fact with the exception of the minor inaccuracies noted in Section II; (ii) rejecting the ALJ's legal conclusions and instead issuing a decision concluding that the bentonite amendment is a practical and workable reclamation technique that will satisfy the reactive mine waste rule; and (iii) imposing the revised special conditions set forth in Section X of the Hearing Team's Proposed Findings of Fact and Recommendations, with minor modifications as noted in Section III.C above. The final agency decisionmaker should not issue a final decision on the permit to mine as a whole, as DNR must still consider separate matters regarding permit term and named permittees prior to making a decision whether to reissue the permit.

Dated this 7th day of June, 2024

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