9-2000-7099-1

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES

In the Matter of the Proposed Permanent Rules Related to Nonferrous Metallic Mineral Mineland Reclamation, Minnesota Rules, Chapter 6132.

REPORT OF THE ADMINISTRATIVE LAW JUDGE

The above-entitled matter initially came on for hearing before Administrative Law Judge Phyllis A. Reha on December 4, 1992, in Room 10 of the State Office Building, St. Paul, Minnesota. The hearing was reconvened on December 7, 8, and 9, at Ironworld, USA, Chisholm, Minnesota. The agency panel which appeared at the hearings was: Arlo Knoll, Manager of the Mineland Reclamation Program; Paul Eger, Engineer with the Division of Minerals; Steve Dewar, Mineland Reclamation Field Supervisor; Julie Jordan, Mineland Reclamation Specialist; Paul Pojar, Geological Engineer with the Department of Natural Resources; Bill Brice, Director of the Division of Minerals; Kim Lapakko, Reclamation Section of the Minerals Division; and Memos Katsoulis, Geological Civil Engineer with the Department. Andrew Tourville, Special Assistant Attorney General, 520 Lafayette Road, Suite 200, St. Paul, Minnesota 55155, appeared on behalf of the Department. Thirty-six persons attended the hearing in St. Paul. Thirty-three persons were in attendance in Chisholm.

The record remained open for the submission of written comments for twenty calendar days after the last hearing date in Chisholm. The comment period on these rules ended on December 29, 1992. Five business days were allowed for responsive comment after the end of the comment period. On January 6, 1993, the rulemaking record closed for all purposes. A number of written comments were received from interested persons and the Department. The Department made several changes to the rules during the comment period in addition to the changes made at the time of the hearings. Department Exhibit 17.

This Report must be available for review to all affected individuals upon request for at least five working days before the Department takes any further action on the rules. The Department may then adopt a final rule or modify or withdraw its proposed rule. If the Commissioner makes changes in the rule other than those recommended in this Report, he must submit the rule with the complete hearing record to the Chief Administrative Law Judge for a review of the changes prior to final adoption. Upon adoption of a final rule, the agency must submit it to the Revisor of Statutes for a review of the form of the rule. The Department must also give notice to all persons who requested to be informed when the rule is adopted and filed with the Secretary of State.

Based upon all the testimony, exhibits and written comments, the Administrative Law Judge makes the following:

FINDINGS OF FACT

Procedural Requirements

1. On October 16, 1992,, the Department filed the following documents with the Administrative Law Judge:

(a) A copy of the proposed rules certified by the Revisor of Statutes.
(b) The Order for Hearing.
(c) The Notice of Hearing proposed to be issued.
(d) A draft Statement of Need and Reasonableness (SONAR).

2. On October 30, 1992, the Department filed its SONAR.

3. On November 2, 1992, a Notice of Hearing and a copy of the proposed rules were published at 17 State Register pp. 946-969.

4. On November 2, 1992, the Department mailed the Notice of Hearing to all persons and associations who had registered their names with the Department for the purpose of receiving such notice.

5. The Department published discretionary notice of the hearing in this matter in Skilling's Mining Review, November 7, 1992, and EQB Monitor, November 9, 1992.

6. On November 6, 1992, the Department filed the following documents:

(a) The Notice of Hearing as mailed.
(b) The Agency's certification that its mailing list was accurate and complete.
(c) The Affidavit of Mailing the Notice to all persons on the Agency's list.
(d) The Affidavit of Discretionary Notice.
(e) The names of Department personnel who will represent the Agency at the hearing together with the names of any other witnesses solicited by the Agency to appear on its behalf.
(f) A copy of the State Register containing the proposed rules.

7. The period for submission of written comment and statements remained open through December 29, 1992, the period having been extended by order of the Administrative Law Judge to 20 calendar days following the hearing. The record closed on January 6, 1992, the fifth business day following the close of the comment period.

Statutory Authority

8. Minn. Stat. §§ 93.44 to 93.51 (hereinafter "the Mineland Reclamation Act" or "the Act") sets out a policy and enunciates standards for the control of mining activity. Subdivision 1 of Minn. Stat. § 93.47 requires the

Commissioner to conduct "a comprehensive study and survey in order to determine ... the extent to which regulation is necessary in the interest of the general welfare." The standards which the Commissioner is obligated to follow are set out in subdivision 2 which states:

> In determining the extent and type of regulation required, the commissioner shall give due consideration to the effects of mining upon the following: (a) environment; (b) the future utilization of the land upon completion of mining; and (c) the wise utilization and protection of the natural resources including but not limited to the control of erosion, the prevention of land or rock slides, and air and water pollution. The commissioner shall also give due consideration to (a) the future and economic effect of such regulations upon the mine operators and landowners, the surrounding communities, and the state of Minnesota; (b) the effect upon employment in the state; (c) the effect upon the future mining and development of metallic minerals owned by the state of Minnesota and others, and the revenues received therefrom; and (d) the practical problems of the mine operators and mineral owners including, but not limited to, slope gradients as achieved by good mining or soil stabilization practices.

Once the study is completed, "the commissioner ... may adopt rules ... in regard to the following: (a) mine waste disposal, (b) mining areas, including but not limited to plant facilities and equipment, and (c) permits to mine ...." Minn. Stat. § 93.47, subd. 3. The Department has the statutory authority to adopt rules on nonferrous metallic mineral mineland reclamation.

Discussion of the Proposed Rules

9. As required by the Mineland Reclamation Act, the Department has conducted a long-term study of mining techniques to determine what regulation is appropriate. The published results of the Department's experience has been included in the rulemaking record as exhibits. These include: Managing the Hydrologic Impacts of Mining on Minnesota's Mesabi Iron Range (Exhibit 1); Appendices to the Final Report: Nonferrous Mineral Project (Exhibit 2); Possible Environmental Impact of Base Metal Mining in Minnesota (Exhibit 3); Minnesota Mineland Reclamation for Iron Mining (Exhibit 9); Direct Seeding of Jack Pine on Waste Rock Dumps (Exhibit 15); Taconite Tailing Basins as a Site for Growing Vegetation (Exhibit 16); Survival and Growth of Four Species of Conifers Planted on Taconite Tailing in Minnesota (Exhibit 17); First Year Survival and Growth of Willow and Poplar Cuttings on Taconite Tailings in Minnesota (Exhibit 18); Nonferrous Metal Mining: Impact, Mitigation, and Prediction Research (Exhibit 19); Economic Impacts of Mineland Reclamation Activities (Exhibit 20); Use of Sulfate Reduction to Remove Metals from Acid Mine Drainage (Exhibit 21); The Use of Low Permeability Covers to Reduce Infiltration into Mining Stockpiles (Exhibit 22); 1978 DNR/AMAX Field Leaching and Reclamation Program Progress Report (Exhibit 23); Stockpile Leaching and Chemical Transport at the Erie Mining Company Dunka Site: A Data Summary for 1976-1979 (Exhibit 24); Transport of Chemical Constituents Present in Mining Runoff Through a Creek System (Exhibit 25); Environmental Leaching of Duluth Gabbro Under Laboratory and Field Conditions: Oxidative Dissolution of Metal

Sulfide and Silicate Minerals (Exhibit 26); The Leaching and Reclamation of Low Grade Mineralized Stockpiles (Exhibit 27); Heavy Metals Study - Progress Report on the Field Leaching and Reclamation Study: 1977-1983 (Exhibit 28); Nickel and Copper Removal from Mine Drainage by a Natural Wetland (Exhibit 29); Use of Wetlands to Remove Nickel and Copper from Mine Drainage (Exhibit 30); Mixed Disposal of Waste Rock and Tailings to Reduce Trace Metal Release from Waste Rock (Exhibit 31); Heavy Metals Study - 1979 Progress Report on the Field Leaching and Reclamation Program and the Removal of Metals from Stockpile Runoff by Peat and Tailings (Exhibits 35 and 37); The Environmental Leaching of Stockpiles Containing Copper-Nickel Sulfide Minerals (Exhibit 36); The Design of a Wetland Treatment System to Remove Trace Metals from Mine Drainage (Exhibit 38); Use of Wetlands to Remove Trace Metal from Mine Drainage (Exhibit 39); The Leaching and Revegetation of Low-Grade Mineralized Stockpiles - A Status Report (Exhibit 40); Inter-Agency Task Force Report on Base Metal Mining Impacts (Exhibit 42); and Vegetation Characterization of a Taconite Tailing Basin in Minnesota (Exhibit 45).

The proposed rules are intended to carry out the Department's statutory obligation to impose needed regulation on some mining operations. The operations affected are the mining of metallic minerals, except for iron. At present, there is no such mining being conducted in Minnesota, beyond that done for the DNR's study. However, 16 leases for nonferrous metallic mineral mining have been awarded (and one is pending) since 1966. Exhibit 25(a). Over the last decade, exploration has been conducted in thirty-two counties in the state. Exhibit 25. The geology of almost half the state is favorable for the presence of copper, nickel, titanium, or manganese. Exhibit 19.

The Department has a long experience with mining operations through the extensive mining of taconite and iron ore in Minnesota. This experience has shown that mining operations demonstrate a significant risk of adverse environmental impact. Northshield, Inc. asserted that the likely impact of mining on water quality will harm the tourism business of the state out of proportion to the economic benefit derived from mining. The commentator suggests that the Department prohibit any mining operation until its methods are demonstrated to work in other states with pollution from the operation being kept to an absolute minimum.

The proposed rules establish a framework to advance environmental considerations to the initial planning stages of mining and impose rules of conduct which focus attention on potential adverse consequences of ongoing operations. The terms of financial assurance are also established, to ensure that operators are not avoiding responsibility for damage caused by their operations. Opportunities for public involvement are incorporated into the permitting process.

The proposed rules do not set performance standards for mining operations. Rather, the rules require that mining operations minimize adverse impacts on the environment. This approach is supported by the mining industry and Dr. Lewis Wade, Research Director of the Bureau of Mines, U.S. Department of the Interior. They maintain that outcome-based regulation allows site-specific tailoring of waste containment and treatment, thereby lessening costs. The Minnesota Pollution Control Agency (MPCA) and some interested groups opposed outcome-based regulation. They assert that, absent specific performance standards, mining operations will be designed to the least cost alternative, without regard to environmental impact.

The statute authorizing these rules do not require specific standards for the conduct of mining operations. The need and reasonableness of each portion of the Department's scheme for regulating nonferrous mineral mining will be discussed, as appropriate.

10. The Administrative Law Judge must determine, inter alia, whether the need for and reasonableness of the proposed rules has been established by the Department by an affirmative presentation of facts. The Department prepared a Statement of Need and Reasonableness (SONAR) in support of the adoption of the proposed rules. At the hearing, the Department primarily relied upon its SONAR as its affirmative presentation of need and reasonableness. The SONAR was supplemented by the comments made by the Department at the public hearing and its written post-hearing comments.

The question of whether a rule is reasonable focuses on whether it has a rational basis. The Minnesota Court of Appeals has held a rule to be reasonable if it is rationally related to the end sought to be achieved by the statute. Broen Memorial Home v. Minnesota Department of Human Services, 364 N.W.2d 436, 440 (Minn.App. 1985); Blocker Outdoor Advertising Company v. Minnesota Department of Transportation, 347 N.W.2d 88, 91 (Minn.App. 1984). The Supreme Court of Minnesota has further defined the burden by requiring that the agency "explain on what evidence it is relying and how the evidence connects rationally with the agency's choice of action to be taken." Manufactured Housing Institute v. Pettersen, 347 N.W.2d 238, 244 (Minn. 1984).

This Report is generally limited to a discussion of those rules where issues of need, reasonableness, or statutory authority have been raised. Because some sections of the proposed rules were not commented on negatively by the public and were adequately supported by the SONAR, a detailed discussion of those sections is unnecessary. The Administrative Law Judge specifically finds that the need for and reasonableness of the rule provisions that are not discussed in this Report have been demonstrated by an affirmative presentation of facts, and that such provisions are specifically authorized by statute. Any change proposed by the Department from the rules as published in the State Register which is not discussed in this Report is found not to constitute a substantial change.

Proposed Rule 6132.0100 - Definitions

11. Proposed rule 6132.0100 establishes definitions for thirty-three terms used throughout these rules. Only those definitions which received comment will be discussed.

Subpart 28 - Reactive Mine Waste.

12. Douglas Schrader, President of the Iron Mining Association of Minnesota (IMA), objected to the definition of "reactive mine waste" as being so broad "it could inappropriately include all mine waste." December 8, 1993 Transcript, at 11. The definition, contained in subpart 28 of proposed rule 6132.0100, is "waste that is shown through characterization studies to release substances that adversely impact natural resources." The Department further explained the definition as "characteristics that can cause water ... to assume an unacceptable quality due to contamination." SONAR, at 7. The waste characterization process is discussed below. The definition of "reactive mine waste" is not overbroad or vague. Subpart 28 is needed and reasonable, as proposed.

Proposed Rule 6132.0300 - Scope.

13. Proposed rule 6132.0300 determines the scope of specific aspects of the proposed rules. Subpart 1 prohibits persons from conducting mining operations for nonferrous minerals without a permit to mine. Ernest Lehmann, President of the Minnesota Exploration Association (MExA), argued, perhaps rhetorically, that excavators moving earth for house foundations could be required to obtain a permit to mine. Only those who extract nonferrous minerals as the object of their operations must obtain a permit to mine. Simply moving earth does not require compliance with these rules.

14. Subpart 4 reiterates that these rules do not apply to mining operations which primarily extract iron. The final comments submitted by the Project Environment Foundation recommended that these rules apply "wherever high sulfide rock is disturbed ... even if the principle metal extracted is iron." Project Environment Comment, at 1. These rules, by their own terms, are limited to nonferrous metallic mineral mining. To include any rule which would apply to ferrous mineral mining would be a substantial change, since a large segment of the regulated public, ferrous mine operators, would not have adequate notice that these rules would apply to their operations. The Department's refusal to change the rule to include iron extraction from high sulfide rock is not a defect.

The subpart goes further and prohibits mining of fissionable ores, such as uranium or thorium, and prohibits using in-situ leaching as a method of conducting a mining operation. Dr. Wade urged that no mining technology be explicitly prohibited. The commentator encouraged DNR to promote flexibility and innovation in conducting mining operations. Ending these prohibitions is explicitly conditioned upon rules being adopted in each area. The Department bases its prohibition of the mining of fissionable ores and in-situ leaching on the lack of any adequate study of the effects from these activities. SONAR, at 8. Prohibiting in-situ leaching and mining of fissionable ores has been shown to be needed and reasonable.

Project Environment Foundation, Northshield, and Diadra Decker, Chair of the Sierra Club Mining Task Force, suggested that heap and dump leaching be added to the specific prohibitions in subpart 4. This suggestion is based upon experiences with that technique in Colorado, Montana, Nevada, South Carolina, and South Dakota. PEF Comment, at 2; Decker Comment, at 1; Northshield Comment, at 5. A number of contaminant releases at mining sites in other states are cited by these commentators as demonstrating that the method is unproven. In their estimation, heap and dump leaching is in the same category with fissionable material and in-situ leaching and should be prohibited until a specific study has been performed to demonstrate the method's safety.

The Department does not agree that heap and dump leaching is an unproven technology. DNR pointed out that the problems cited in Idaho occurred in mines not regulated by Idaho's new rules (adopted in 1988). Department Comment, at 1. Leaching is a phenomenon the DNR has experience with, through the problems which have occurred at several ferrous mining sites in Minnesota (e.g. the Dunka pit). In these cases, earth containing nonferrous metallic minerals had been moved and stockpiled to gain access to the ferrous minerals underneath. These unlined stockpiles have been exposed to the weather. After

a period of years, the water around these stockpiles has shown an increase in the nonferrous metal content. Department Exhibits 21-26, 40. Results of several studies to abate these conditions have been introduced into the record. Department Exhibits 27-31, 35-39. The Department's experience in the problems of leaching, both intentional and inadvertent, will aid the DNR in assessing applications for permits to mine.

Heap and dump leaching allows mining at a lower energy cost which extracts a higher percentage of ores from the mined earth. Extensive expert testimony was introduced which supported the reasonableness of allowing this mining technique. The Department's witnesses expressed their conclusion that heap and dump leaching can be performed while minimizing pollution. December 8, 1992 Transcript, at 108-33 and 154-84. This process is needed to render mining operations more cost-effective. Since the Department will not approve a design proposed by an applicant without evidence that the leaching process can be performed safely, allowing heap and dump leaching has not been shown to be a defect in the proposed rules. Subpart 4 has been shown to be needed and reasonable.

15. Subpart 5 clarifies that the reclamation rules do not waive compliance with any other rule, statute, or ordinance. PEF suggested an additional sentence which states where conflicts exist, the most restrictive rule or statute applies. This language is used, at present, in the ferrous reclamation rules. Minn. Rule 6130.0300, subpart 8. DNR stated that the suggested language has caused confusion in what standard applies to any given situation. As proposed, the subpart establishes the independence of these rules from any other applicable regulation. Subpart 5 effectively eliminates any preemption which might otherwise have occurred through the adoption of these rules. The rule part is needed and reasonable, as proposed.

Proposed Rule 6132.1000 - Mine Waste Characterization.

16. Deciding whether to grant an application for a permit to mine is largely affected by what wastes are produced in the mining process. Typical wastes are acids used in leaching solutions and dissolved metals. These wastes have their greatest adverse impact on the groundwater near the mine site. For example, cyanide or metals in groundwater can be toxic to fish, animals, and humans. Acids can raise the pH level of water, thereby causing fish kills. Characterization of mine wastes identifies the substances which are likely to contaminate the environment, and identifies the impact of the waste. Department Exhibits 47-59.

Dr. Ann Maest suggested that waste characterization include the ore extracted, as well as the waste generated. This addition was suggested to insure that protective measures for mining operations would be adequate to deal with the ore obtained, as well as the waste generated. DNR responded that the rule already incorporated that requirement and the Department would require protective measures that would prevent contamination by leached ore. Department Comment, at 10.

17. USX Corporation and BHP Minerals objected to the wording of subpart 2 which requires an "independent party" to perform waste characterization. These commentators suggested that using the term "persons" instead would encourage permittees to develop characterization expertise within their own

organizations. The only problem presented by the change is the inherent potential for conflict of interest, since the characterization will be performed by an employee of the permittee. BHP Minerals pointed out that there are few persons qualified to perform waste characterization and most of them are employed by mining companies. The Department accepted the suggestion and changed subpart 2 accordingly. DNR stated that it did not expect any problem with reliability of waste analysis, since the Department would retain oversight and approval of the person performing the characterization. Department Response, at 1. While the new language does raise the possibility of a conflict, the DNR's oversight reduces the likelihood that incorrect characterization will occur. Subpart 2, as modified, is needed and reasonable. The modification is not a substantial change.

Proposed Rule 6132.1100 - Permit Applications.

18. Subpart 1 of proposed rule 6132.1100 sets out preapplication procedures required of an applicant seeking a permit to mine. These procedures are a preapplication conference with the Commissioner, a site visit, and a public informational meeting. Thirty days notice of the meeting is required through publication in the State Register, the EQB Monitor, and a "qualified newspaper" circulated in the area where the mining will occur. Minn. Stat. § 331A.02 sets out the standards for "qualified newspaper." PEF suggested that interested parties who have registered their interest be given notice of the meeting by mail. DNR explained that the EQB Monitor was intended to eliminate the need for mailing lists. The Department also argued that applicants would find it difficult to establish who was interested in the particular operation.

In addition, the Sierra Club suggested that notice periods be increased to sixty days. MExA pointed out that the entire permitting process would take from two to three years and argued that expanded public notice periods were unnecessary. Two classes of persons are likely to be interested in attending these meetings: 1) those living in the area of the proposed operation, and 2) those with an opinion on mining. Local publication and the circulation of the EQB Monitor insure that both these groups are notified of the informational meeting. Subpart 1 is needed and reasonable.

19. Subpart 3 of proposed rule 6132.1100 requires certification of adequate insurance from applicants. Adequate insurance can be a public liability insurance policy or evidence that the applicant meets any applicable state or federal self-insurance requirements. In either case, the amount of insurance must be adequate to compensate persons damaged through the mining operation. In addition, financial assurance must be provided under proposed rule 6132.1200. Financial assurance is the demonstrated ability to cover the cost of any restoration or corrective action required from the mining operation. PEF suggested that self-insurance and self-assurance be prohibited. They suggest that the public will not be adequately protected if the operator goes bankrupt or becomes insolvent. PEF Comment, at 4. The Minnesota Pollution Control Agency (MPCA) and IMA asserted that these provisions were too vague and should be replaced with specific insurance requirements. The Department asserts that self-insurance is an inherent option for all corporations and governments. Further, the Department indicates that this rule language for self-insurance is contained in Minn. Stat. § 93.481, subd. 1.

Subdivision 1(b) expressly includes the alternatives of insurance from an outside insurer or self-insurance. The Administrative Law Judge has not found, nor has any commentator cited, any statute or case which allows corporations to self-insure in all instances. Nevertheless, Minn. Stat. § 93.481, subd. 1(b) does allow self-insurance and the Department cannot adopt a rule restricting a right granted by statute. Can Manufacturers Institute, Inc. v. State, 289 N.W.2d 416, 425-26 (Minn. 1979). The Department has shown the requirements on insurance are needed and reasonable.

Proposed Rule 6132.1200 - Financial Assurance.

20. Minn. Stat. § 93.49 requires mine operators to provide "a bond or other security or other financial assurance satisfactory to the commissioner ...." A permit to mine cannot be issued until the applicant submits, inter alia, financial assurance and any bond required by the Commissioner under Minn. Stat. § 93.49. Minn. Stat. § 93.481, subd. 1(b) and (c). Proposed rule 6132.1200 sets out the requirements for the financial assurance to be provided by applicants for a permit to mine.

Closure, postclosure, and corrective action cost estimates are the basis of assessing the applicant's proposed financial assurance. The Department has not mandated particular financial instruments or dollar amounts for meeting this requirement. The applicant's financial assurance is assessed by the criteria in subpart 5. These criteria are: 1) sufficiency to meet estimated costs; 2) funds payable to the Commissioner when needed; 3) payment of the funds must be enforceable under state and federal law; 4) that the funds will not be affected by bankruptcy, and 5) Commissioner's approval, using outside evaluation to be paid for by the applicant. This method of measuring the adequacy of financial assurance is based upon the EPA's method under the Surface Mining Act of 1977 (SMCRA). December 8, 1992 Transcript, at 90-1. The Department's expert on financial assurance, Victoria Bryan, acknowledged that most other states specify the types of financial instruments required. Id. at 81. The criteria proposed by the Department are adequate to meet the public interest that adequate funds be available when needed. The Department's method of setting financial assurance offers flexibility to applicants.

Several commentators questioned whether the requirement that the funds be unaffected by bankruptcy precluded self-assurance. Ms. Bryan cited cases holding that obligations for reclamation or corrective action are future obligations and therefore not dischargable by bankruptcy. Should caselaw or the bankruptcy code change, the Department's application of that criterion must change so as not to conflict with the statutorily authorized right to self-assurance. The criterion is not a defect, however, because any method of financial assurance which is not self-assurance should be payable regardless of any legal action by the permittee, or the permittee's creditors. Annual review of each operator's financial assurance is required by Minn. Stat. § 93.49. This action will protect against financially troubled operators failing to meet the financial assurance requirements. Requiring access to funds in an amount adequate to cover reclamation or corrective action needed from mining operations is needed and reasonable.

PEF urged that public notice and comment be encouraged regarding financial assurance whenever the amount is set, modified, or when the permittee is released. The public interest is undoubtedly affected when the financial assurance amount of a permittee is set or released. The Department pointed out that public comment is already sought in the permit-granting phase of the permit to mine process. The Commissioner's obligation in this process is to protect the public interest. PEF has not shown that the Department is insensitive to public concerns in carrying out its functions. DNR has indicated that public complaints or comments are followed up without establishing procedural safeguards requiring the Department to do so. Department Comment, at 4. The rule is needed and reasonable as proposed.

Proposed Rule 6132.1400 - Request for Release from Permit.

21. When a permittee has concluded its reclamation of the mining area, the permittee may request the DNR to release it from continued compliance with the permit to mine rules. PEF expressed concern that any further problems arising from the mining operations would become the responsibility of the state. If any significant problem is evident at the time of the request, the request is likely to be denied. The Department reiterated that the release would be only from the permit to mine rules, not any applicable MPCA or federal rules. Thus, any ongoing pollution problem would fall under the jurisdiction of the MPCA or U.S. Environmental Protection Agency (EPA), even if the permittee was released by the Department. Mining operations will only continue so long as ores can be obtained from a site. It is reasonable to relieve both the permittee and the Department of the significant burdens imposed by these rules when mining is no longer being performed at the site. Proposed rule 6132.1400 is needed and reasonable to provide standards for the information to be provided in a request for release from the permit to mine.

Reclamation Standards.

22. Proposed rules 6132.2000, 6132.2100, 6132.2200, 6132.2300, 6132.2400, 6132.2500, 6132.2600, 6132.2700, 6132.2800, 6132.2900, 6132.3000, and 6132.3200 govern the process of siting, operating, correcting violations, closure, and postclosure maintenance. These proposed rules do set some specific standards in particular areas (e.g. siting, vegetation, and blasting), however, the bulk of these rules only establish performance criteria to be applied in the various stages of mining under a permit to mine. The MPCA recommended that specific standards be set for operations to aid enforcement of the rules. The Department has declined to set those standards beyond the extent already present in the proposed rules. None of the commentators with experience in mining objected to the Department's approach. The commentators generally opposed to the expansion of mining operations in Minnesota urged specific technologies be prohibited, but did not object to the Department's approach. DNR has demonstrated that, overall, its performance criteria are needed and reasonable to minimize the adverse environmental impact arising from mining operations by arriving at specific standards which will vary from site to site. Particular standards set in these rule parts were based upon the Department's twelve years of experience in iron and taconite mining and were, for the most part, not commented upon. Specific comments on particular standards or criteria will be discussed in the following Findings.

Adding a Probable Maximum Precipitation Design Standard.

23. PEF and the Sierra Club suggested the proposed rules on design of storage piles, tailings basins, and heap and dump leaching facilities contain a probable maximum precipitation (PMP) event standard which each facility must meet. A PMP event is the largest likely amount of precipitation over a stated period of time (e.g. 25 years, 100 years) at the particular locality. The Department declined to add such a standard, maintaining that the approach of the rules is outcome-based. This means that each individual design must take into account the particular circumstances of location, geology, and weather conditions to arrive at appropriate design standards. PMP events are used in design standards to ensure the adequacy of containment, even under extreme weather conditions. A 25 year PMP event standard would provide adequate additional protection for mining operations, and adopting that standard, if the DNR chooses to do so in the rules would be needed and reasonable. The Department's proposed outcome-based regulation, not relying upon a single PMP event standard for all designs, is also needed and reasonable. Using an outcome-based approach allows the DNR to impose a more stringent standard when conditions warrant, and a less stringent standard where adequate protection has been demonstrated.

Inspection Duties.

24. A design professional must be employed for the initial design, construction, operation, and reclamation of each mining operation under proposed rules 6132.2200, subp. 2(C)(2); 6132.2500, subp. 2(B)(5); and 6132.2600, subp. 2(B)(7). John Woodward, Director of Environmental Management for NERCO Minerals Company (NERCO) and USX objected to the wording of these three provisions as being unnecessarily restrictive. DNR acknowledged that the provisions could be read as requiring the same individual at each stage. The Department modified the rule parts to allow any qualified professional to perform the required tasks, when the original design professional is unavailable. This language accomplishes the objective of keeping the original designer, to take advantage of that person's knowledge of the site, while affording flexibility to operators in the event of changes in personnel. The rule parts, as modified, are needed and reasonable. The modifications do not constitute substantial changes.

Monitoring Locations.

25. The MPCA asserted that the requirements for water quality monitoring (found in parts 6132.2200, subp. 2(C)(3); 6132.2500, subp. 2(B)(6); and 6132.2600, subp. 2(B)(8)) could be confused with the MPCA's monitoring well requirements. The MPCA suggested altered language to clarify the jurisdiction of each agency, avoid duplication in regulatory effort, and reduce the potential for confusion. The Department has shown that the protection of natural resources justifies the rules requiring water quality monitoring. Since the Department has not specifically required particular wells, the operator is free to use any facility available for monitoring. If this facility meets the needs of the reclamation rules, there is no problem with using it, even if it is required under MPCA rules. Since the Department has proposed performance-based criteria, there is no prospect of duplication or confusion with other agency rules. The rule parts have been shown to be needed and reasonable as written.

Proposed Rule 6132.2000 - Siting.

26. Subpart 1 of proposed rule 6132.2000 sets forth the goals of the siting criteria to be minimizing the adverse impacts on people and the environment. Pollution standards of other entities must be incorporated in site design and conflicting land uses will not be infringed upon. Subpart 2 expressly prohibits mining (not expressly allowed by federal or state statute) from the Boundary Waters Canoe Area (BWCA), wilderness areas, Voyageurs National Park, state parks (unless the park was established due to its connection with mining), scientific areas, natural areas, and calcareous fens. Peatlands where water flows would be significantly modified or certain other characteristics affected are also excluded as possible mine sites. Northshield argues that a local referendum based on plebiscite voting should precede approval of any mining site. No statutory support has been cited for such a drastic change in the proposed rules. The Legislature has delegated the responsibility for issuing permits to mine to the Commissioner. The Legislature has not established a process for majority vote on every proposed mine site. The existing uses of the lands identified in subpart 2 are antithetical to mining. No commentator suggested that mining should be allowed in those areas. Subpart 2 is needed and reasonable.

27. Just as any mining within the areas listed in subpart 2 is prohibited, surface disturbances within set distances of those areas are prohibited by subpart 3. The BWCA Management Corridor is entirely excluded from surface disturbances, and surface mining activities one-quarter mile from the other areas listed in subpart 2 is also prohibited. A number of other areas are listed in the prohibitions of this subpart including historic places, certain rivers, and the North Shore Management Plan. Surface disturbances are prohibited within 500 feet of homes, churches, schools, and public institutions or parks, except where the permit to mine came before listed uses. Cemeteries and public roadways require a 100 foot setback. DNR supported this subpart as needed to protect these uses from unnecessary disruption while allowing mining operations to obtain nearby minerals. The only comments on this subpart came from Northshield, which suggested that all the specific setbacks be increased and the entire BWCA watershed be protected from surface mining. The Department adopted most of the setback provisions from existing rules. December 7, 1992 Transcript, at 127. No reasons were given by Northshield as compelling an increase in the setbacks or an exclusion of the BWCA watershed from surface disturbance. The Department has shown that the setback distances chosen are needed and reasonable to prevent disruption caused by mining operations, and to screen the mining operations from other uses. While larger distances may provide more protection, DNR is not obligated to choose any particular alternative more than one that accomplishes the Department's objective. Subpart 3 is needed and reasonable.

28. Northshield objected to the entire effect of subpart 4 as undoing the restrictions set in subparts 2 and 3. Subpart 4 permits mining under certain conditions in wildlife refuges, production areas, trails, and certain peatlands. There is no indication that subpart 4 has the effect of allowing mining in any area for which mining or surface disturbances is prohibited. Rather, the rule imposes conditions which must be met prior to obtaining a permit to mine for areas beyond the prohibited or restricted areas. The Department has assessed the need for protecting the resources listed in the subpart and asserts that the value of the resources justifies compelling mine operators to demonstrate that no reasonable alterative exists to mining in that location. Subpart 4 is needed and reasonable.

29. Some parts of mining operations are not flexible concerning their location. The mine must go where the ore is, for example. Where there is a choice of location, subpart 5 establishes the performance criteria to be used in siting the mining facility. Northshield objected to the language used in each criterion that requires the siting to "minimize" adverse impacts. The commentator suggested "avoiding" the adverse impacts. The suggested language implies a total elimination of adverse impact. The Department's language recognizes that mining causes undesirable effects which are not avoidable, but does require mining operations to be as environmentally "friendly" as can practically be achieved. Subpart 5 as proposed by the Department is needed and reasonable and is consistent with the legislative mandate.

Proposed Rule 6132.2200 - Reactive Mine Waste.

30. Any mined material which releases substances adverse to the environment, identified in the waste characterization process, is reactive mine waste. Subpart 1 of proposed rule 6132.2200 states the goal of preventing the release of materials that adversely affects the environment. The specific requirements of characterization, containment, and monitoring are set out in subpart 2. The monitoring standard requires locations for wells or other methods "to ensure compliance with the design" of the waste storage facility. Proposed rule 6132.2200, subp. 2(C).

PEF suggested that this standard include a requirement that monitoring actually be done during the operation of the mine and for 25 years after closure. In addition, the suggestion included an option that if the waste has not exhibited a reactive character for 5 years, the monitoring may be discontinued. The Department declined to modify this provision, stating that subpart 2(B)(1) and (2) require permittees to either modify the waste or permanently provide for collection and disposal of leachate. Department Comment, at 5. The Department interprets that subpart to require the permittee to bear the costs of monitoring, without a time limit, until the leachate is no longer reactive. Id. The Department has a proposed rule more stringent than that suggested by PEF. The requirement is needed and reasonable.

31. Subpart 2(B) requires a reactive mine waste storage facility to either modify the physical or chemical characteristics of the waste to render it nonreactive or "permanently prevent substantially all water from contacting mine waste" and collect and dispose of any residual water from the waste. The operator must either modify the waste or contain it. Item 2 establishes the required outcome of waste storage. The rule as originally proposed restricts water from coming in contact with the waste and requires collection and disposal of remaining residual water.

USX and BHP Minerals objected to item 2 as precluding disposal of mine waste by returning the waste to the mine and immersing it in water. BHP Minerals cited studies which suggest immersion to be an effective method of "inhibiting acid generation to negligible levels." BHP Minerals Comment, at 3. The Department's own expert suggested disposal of tailings in bodies of water to prevent reactions. December 8, 1993 Transcript, at 172-5. Northshield objected to in-mine disposal and suggested that the practice be prohibited. MExA supported in-mine disposal as a preferred option. December 7, 1993 Transcript, at 134.

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. In effect, this outcome would prohibit both immersion in uncontained bodies of water and in-mine disposal of reactive mine waste, since the operator could not collect the water running off the waste. In-mine disposal of nonreactive mine waste is not prohibited by these rules. December 7, 1993 Transcript, at 134.

DNR explained that the desired result of mine waste disposal is to minimize the potential for leaching of harmful substances from the waste. SONAR, at 22. The Department chose containment for reactive mine waste, with exclusion of additional water, because that system is not as dependent upon continued maintenance over the long term. Id. To clarify the rule, the Department altered subpart 2(B)(2) to indicate that water "passing over and through" the waste was to be prevented and water draining from the waste was to be collected. Department Response, at 1. The rule, as modified, is needed and reasonable. The new language clarifies what methods of disposal are permissible and does not constitute a substantial change from the rules as published in the State Register.

Proposed Rule 6132.3200 - Closure and Postclosure Maintenance.

32. The proposed rules apply a cradle-to-grave approach to mining operations authorized under the permitting process. Proposed rule 6132.3200 establishes the requirements permittees must meet when any permitted site is closed, either temporarily or permanently. If a temporary shutdown is proposed, under subpart 2 the Department must assess the information provided by the permittee as part of its request and decide whether the proposed action adequately protects natural resources, is free of hazards, and does not require further maintenance. If the Department does not agree to the temporary shutdown, the contingency reclamation plan must be implemented.

MExA urged that temporary shutdown be defined in the rule to prevent conflicts between operators and the Department. The commentator asserted that the Commissioner could deny the temporary shutdown request and thereby require the mining operation to remain open. December 8, 1992 Transcript, at 30. The Department disagreed with the commentator's conclusion about the result of denying the shutdown request. Present practice in the mining industry is to remain operating when the market price of ore is profitable, and stop operating when the price falls. Id. at 34-5. Where the shutdown is temporary, the facilities are left intact for the most part. Where the shutdown is permanent, a schedule of removal for all the facilities must be followed. The removal of all mining facilities is a significant cost to operators. Id. at 35.

While the comments demonstrate a significant impact on permittees, the Department has a clear interest in regulating both the temporary and permanent shutdowns of mining operations. Whenever a shutdown occurs, the Department is responsible for insuring protection of natural resources. Tailings basins, storage piles, open pits, and drainage have the potential for adverse environmental impact and could require expensive reclamation. Whenever a permittee has ceased operations, the potential exists that the site will never be reopened. The Department has demonstrated the need for a decision as to whether a particular site should be left dormant or reclamation initiated.

Subpart 2(D) sets out three criteria to determine whether a shutdown is temporary or permanent. They are: 1) level of compliance with all permits; 2) degree of safety and stability of all facilities; and 3) need for corrective action procedures. Thus, if a sound mining operation is not posing a hazard or leaving a problem behind (and the permittee documents its future procedures as required in subpart 2(B)), the shutdown will qualify for temporary shutdown status. Operations not in complete compliance with all three criteria can qualify, if the permittee can demonstrate to the Commissioner that additional procedures will result in compliance. If these three criteria cannot be met, the mining operation should be reclaimed to avoid undue harm to the natural resources these rules are intended to protect. The standards proposed are reasonable to evaluate whether temporary shutdown should be approved. "Temporary shutdown" need not be specifically defined in the rules, since operators are aware of what the term means. Proposed rule part 6132.3200 has been shown to be needed and reasonable.

Administrative Procedures.

33. Proposed rule parts 6132.4000 to 6132.5300 establish the procedures used in the application process, variances, amendments, releases, and other administrative actions. Most of the comments relating to these rule parts were discussed in the foregoing Findings. Those discussions will not be repeated in this Report. The Department has demonstrated that those procedures are needed and reasonable. Proposed rule parts which received specific comments will be discussed in the following Findings.

Proposed Rule 6132.4000 - Procedures for Obtaining a Permit to Mine.

34. The complexity of the overall permitting process, including individual permits and studies from the Department and MPCA, together with other state requirements, is clearly depicted by Exhibit 32. That flow chart sets out a timeline for a "best-case scenario" for an applicant to receive a permit to mine. PEF cited this complexity and the technical nature of the application process as reasons for increasing the filing period from 30 days to 90 days for objections to the proposed mining operations. This filing period is set by proposed rule 6312.4000, subpart 2(A) and runs from the last publication of the notice. PEF argues that effective public participation is hampered by a 30 day period due to a lack of resources. PEF Comment, at 11.

Contents of any objection to a proposed mining operation are established by item B of subpart 2. These contents are, at a minimum, the objector's interest in the mining operation, whatever action is sought (with specific references to statute or rules), and sufficient reason to permit investigation of the objections. These contents are needed and reasonable to aid the Department in assessing the merits of each objection.

The 30 day period is required by the permit statute. Minn. Stat. § 93.481, subd. 2. The taconite rules contain a similar provision. DNR has not experienced any lack of participation under those rules. Department Comment, at 7. The total time from the initial publication to the end of the objection period is 51 days. Id. The Department also pointed out that a public information meeting, required by proposed rule 6132.1100, subp. 1, occurs even before the application is filed. Since the requirements for objections are not overly formal, 30 days is not an unduly short period for objections. The 30 day period is needed and reasonable.

35. PEF contended that Minn. Stat. § 93.481, subd. 2 is inconsistent by requiring a hearing within 30 days and "appropriate notice." PEF Comment, at 12. The commentator argues that "appropriate notice" going only to objectors and the hearing taking place within 30 days are inconsistent. The requirement for a hearing within 30 days is in the statute. Minn. Stat. § 93.481, subd. 2. The Department cannot adopt a rule which conflicts with the statute. Can Manufacturers, 289 N.W.2d at 425-26. The timing and notice requirements are needed and reasonable.

36. If an objector meets any of certain criteria proposed in item C, the Commissioner must, under item D, negotiate the objection to the mutual satisfaction of the objector and the applicant or conduct a hearing. If the objector does not meet any of the item C criteria, the Commissioner must inform the objector of why neither option under item D is being afforded and proceed as if no objection had been received. The item C criteria are: ownership of property affected by the proposed mining operation, responsibility affected by the proposed mining operation if the objector is a federal, state, or local agency, and raising a material issue of fact related to the proposed mining operation. The last criterion is effective only if the Commissioner will need a hearing to aid in resolution of the issues presented.

PEF suggested that "material issues of fact" needs to be defined in the rules. PEF Comment, at 11. The definition suggested by this comment includes "issues of law, policy, and procedure." Id. DNR declined to make that change. The Department asserts the phrase "material issues of fact" has a commonly understood meaning. "Material fact" appears in the rules of the Office of Administrative Hearings on contested case hearings. Minn. Rule 1400.5500(K). No definition is provided there. Case law has determined that material issues of fact establish the need for contested cases in administrative proceedings. In re People's Cooperative Power Assn., 447 N.W.2d 11, 13 (Minn.App. 1989), rev. denied (Minn. 1990).

Expanding the definition of "material issues of fact" to include "issues of law, policy, and procedure" guarantees that any relevant objection will result in a contested case hearing under subpart 3. The Department does not intend to have contested cases before administrative law judges to set Department policy or assess the adequacy of the applicant's adherence to procedure. If no issues of material fact exist, the administrative law judge hearing the case would render summary disposition based on the law. The Department is not required to seek a recommendation from an administrative law judge when the only issue is a matter of law. Adopting PEF's suggestion would unreasonably distort the plain meaning of "material issue of fact" and constitute a substantial change in the rules as originally proposed.

Subpart 2 reduces the number of persons involved in hearings concerning a proposed mining operation to the classes of people identified in Minn. Stat. § 93.481, subd. 2 and adds one class, persons who raise issues of material fact. Michael Robertson, MExA, and Mr. Ahern objected to the third class of persons compelling a contested case hearing, since those persons may not be proposing reasonable alternatives to the applicant's proposed operations. December 4, 1992 Transcript, at 59-60; December 8, 1992 Transcript, at 43-53.

Limiting those persons whose objections compel a hearing promotes efficient use of Department resources. Although the third class is not mentioned in the statute, that class by definition aids the Commissioner in

deciding contested matters. The material issue of fact is not the standard used in legal matters for summary judgment. A contested case will only be held where the development of the material issue presented by the objector is needed by the Commissioner to decide the matter. The commentators repeatedly hypothesized a situation where a contested case would be held even if the Commissioner had reached a decision. The subpart clearly conditions the ability to compel a contested case hearing on the Commissioner not having adequate information to decide the issue. The Department has shown that subpart 2 is needed and reasonable to meet the Commissioner's needs in deciding contested matters.

37. Based on past permit issuance practices, PEF suggested that the Department expressly limit the issuance of a permit to mine to no sooner than 60 days after the completion of the final Environmental Impact Statement (EIS). The 60 day period is intended to afford an opportunity for the permit to be amended based on public review and comment on the application in light of the final EIS. PEF Comment, at 13. DNR declined to adopt this suggestion, pointing out that multiple environmental review activities will be proceeding at the same time and opportunities for comment will be available from the initial application filing. Department Comment, at 8. As the process is presently structured, the Department estimates that "there is a 22 to 29 day period between the release of the final EIS and the determination of adequacy." Id. DNR asserts that any significant change between the preliminary EIS and the final EIS, the application will not be granted. Id. Adopting the proposed rule without a 60 day delay between final EIS and issuing a permit to mine is needed and reasonable.

38. Subpart 3 details the hearing process to be followed if objections remain unresolved. On behalf of USX and the Iron Mining Association of Minnesota, Michael Ahern, Attorney at Law with the firm of Moss and Barnett, asserted that a general public hearing should be held when objections remain unresolved, prior to a contested case hearing. MExA supported this suggestion. Subpart 3 requires the hearing to be a contested case hearing under Minn. Stat. Ch. 14. Under the proposed change, a public hearing (not a contested case) would be held once objections are submitted. If issues remain unresolved, objectors would file a notice of continued objection and request for a contested case hearing.

The Department declined to adopt this suggestion, asserting that the statutory requirement of a "public hearing" means "contested case hearing." Department Response, at 12. This interpretation is consistent with the statutory limitations on who has standing to object and the short notice provisions in the statute. The Department has demonstrated that conducting a contested case hearing upon receipt of unresolved objections is consistent with the statutory requirements of Minn. Stat. § 93.481, subd. 2. The provisions of subparts 2 and 3 relating to public hearings are needed and reasonable.

Proposed Rule 6132.4800 - Release of Permittee.

39. The specific provisions for obtaining a release from continued compliance with a permit to mine are contained in proposed rule part 6132.4800. Subpart 2(B) states that, if the conditions are satisfied, "the commissioner shall release the permittee from further responsibility for the reclaimed portion." PEF objected to this language as inconsistent with any

other obligations the mine operator may have under other federal or state agency rules. PEF Comment, at 13. The Department agreed with this comment, and added the words "permit to mine" after "further" in the quoted language. This addition clarifies that only permit to mine responsibilities are released under part 6132.4800.

40. PEF also suggested that public notice and opportunity for comment be required upon the permittee's request for release. The Department agreed with this comment and added item C to subpart 2. This new item requires the permittee to give additional notice if the Commissioner determines that the release is related to a permanent shutdown. The notice procedures to be followed are those for obtaining a permit to mine set out in part 6132.4000. The addition is supported by the Department's anticipated conflict between the Commissioner's view of the release and the view held by the permittee. Including the affected public in the process could aid the Commissioner in deciding on the release. Item C is needed and reasonable to improve the release process. The notice requirement will increase the burden on the permittee, but the benefit obtained by including the public in the process justifies the additional cost. The subpart, as modified, is needed and reasonable. The change does not constitute a substantial change.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. The Minnesota Department of Natural Resources (the Department) gave proper notice of this rulemaking hearing.

2. The Department has substantially fulfilled the procedural requirements of Minn. Stat. §§ 14.14, subds. 1, 1a and 14.14, subd. 2, and all other procedural requirements of law or rule so as to allow it to adopt the proposed rules.

3. The Department has demonstrated its statutory authority to adopt the proposed rules, and has fulfilled all other substantive requirements of law or rule within the meaning of Minn. Stat. §§ 14.05, subd. 1, 14.15, subd. 3 and 14.50 (i) and (ii).

4. The Department has demonstrated the need for and reasonableness of the proposed rules by an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50 (iii).

5. The additions and amendments to the proposed rules which were suggested by the Department after publication of the proposed rules in the State Register do not result in rules which are substantially different from the proposed rules as published in the State Register within the meaning of Minn. Stat. § 14.15, subd. 3, and Minn. Rule 1400.1000, subp. 1 and 1400.1100.

6. Any Findings which might properly be termed Conclusions and any Conclusions which might properly be termed Findings are hereby adopted as such.

7. A finding or conclusion of need and reasonableness in regard to any particular rule subsection does not preclude and should not discourage the

Department from further modification of the proposed rules based upon an examination of the public comments, provided that no substantial change is made from the proposed rules as originally published, and provided that the rule finally adopted is based upon facts appearing in this rule hearing record.

Based upon the foregoing Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATION

IT IS HEREBY RECOMMENDED that the proposed rules be adopted consistent with the Findings and Conclusions made above.

Dated this 1st day of February, 1993.

PHYLLIS A. REHA
Administrative Law Judge

Reported: Janet A. Shaddix & Assoc.
Four Volumes