

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of Proposed Amendments to Rules Governing Water Quality Standards for Protection and Purity, Minn. R. Ch. 7050; and Proposed New Rules Governing Water Quality Standards, Standard Implementation, and Nondegradation Standards for Great Lakes Initiative Pollutants in the Lake Superior Basin, Minn. R. Ch. 7052

REPORT OF THE
ADMINISTRATIVE LAW JUDGE

The above-entitled matter came on for hearing before Administrative Law Judge Allan W. Klein on September 15, 1997, in Virginia, Minnesota. Additional hearings were held in Grand Marais (September 16), Duluth (September 17) and St. Paul (September 24).

This Report is part of a rulemaking proceeding held pursuant to Minn. Stat. §§ 14.05 to 14.20 (1996) to hear public comment, to determine whether the Minnesota Pollution Control Agency (MPCA or Agency) has fulfilled all relevant substantive and procedural requirements of law applicable to the adoption of the proposed rules, whether the proposed rules are needed and reasonable, and whether or not modifications to the rules proposed by the Agency after initial publication are impermissible, substantial changes.

The Agency's hearing panel varied from location to location, but generally consisted of John Hensel, Gary Kimball, Shannon Lotthammer, Gerald Blaha, and Dan Helwig. The Agency was represented by Assistant Attorney General Richard Cool.

The record remained open for the submission of initial written comments until October 14. Following a response period, on October 22 the rulemaking record closed for all purposes. The Administrative Law Judge received numerous comments, including some petitions, during the initial comment period. The Agency also filed initial comments, including one proposed change in response to issues raised at the hearings. During the response period, the Administrative Law Judge received several public comments and one filing from the Agency. The Agency's responsive filing included a number of proposed changes in response to issues raised at the hearings and in written comments.

The Administrative Law Judge requested, and received, an extension of time to prepare this Report pursuant to Minn. Stat. § 14.15, subd. 2 (1996).

This Report must be available for review to all interested persons upon request for at least five working days before the Agency takes any further action on the proposed amendments. The Agency may then adopt a final rule, or modify or withdraw its proposed amendments.

Pursuant to the provisions of Minn. Stat. § 14.15, subd. 3, this Report has been submitted to the Chief Administrative Law Judge for his approval of an adverse Finding. If the Chief Administrative Law Judge approves the adverse Finding of this Report, he will advise the Agency of actions which will correct the defect and the Agency may not adopt the rule until the Chief Administrative Law Judge determines that the defect has been corrected.

If the Agency elects to adopt the suggested actions of the Chief Administrative Law Judge and makes no other changes and the Chief Administrative Law Judge determines that the defects have been corrected, then the Agency may proceed to adopt the rule and submit it to the Revisor of Statutes for a review of the form. If the Agency makes changes in the rule other than those suggested by the Administrative Law Judge and the Chief Administrative Law Judge, then it shall submit the rule, with the complete record, to the Chief Administrative Law Judge for a review of the changes before adopting it and submitting it to the Revisor of Statutes.

If the Agency files the rule with the Secretary of State, it shall give notice on the day of filing to all persons who requested that they be informed of the filing.

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

FINDINGS OF FACT

Procedural Requirements

1. On July 1, 1997, the Minnesota Pollution Control Agency requested the scheduling of a hearing and filed the following documents with the Chief Administrative Law Judge:

- A. A copy of the proposed rules certified by the Revisor of Statutes.
- B. The Notice of Hearing proposed to be issued.
- C. A draft Statement of Need and Reasonableness.

2. On August 4, 1997, a Notice of Hearing and a copy of the proposed rules were published at 22 State Register 154.

3. On July 31, 1997, the Agency mailed the Notice of Hearing to all persons and associations who had registered their names with the it for the purpose of receiving such notice.

4. On the day of the hearing, the Agency placed the following additional documents in the record:

A. The Notice of Hearing as mailed and published.

B. The Agency's certificate of mailing the Notice of Hearing and certificate of mailing list.

C. The Agency's request for approval of its Additional Notice Plan and the Office of Administrative Hearing's approval of the Plan. The Agency mailed copies of the Notice of Hearing to an overwhelming number of persons and entities who either had expressed some interest in water quality rules or the Great Lakes Initiative, or were landowners, governmental entities or legislators who were likely to be interested in the proposed rules. Exhibits 13, 18, and 20-25 document the extent of the Agency's extensive attempts to notify persons of the hearings and the opportunity to comment on the proposed rules.

D. A copy of the letter transmitting the Statement of Need and Reasonableness to the Legislative Reference Library on August 1, 1997. In addition, the Agency filed a copy of its letter transmitting the proposed rules to the Commissioner of Agriculture on May 20, 1997 and to the Commissioner of Transportation on July 18, 1997.

E. All written comments received by the Agency prior to the hearing, including all materials received following publication of Notices of Intent to Solicit Outside Opinion published at 19 State Register 1430 on December 27, 1994 and at 20 State Register 1119 on November 6, 1995 and a copy of those Notices. The latter Notice was also mailed to all persons on the Agency's rulemaking list on November 3, 1995.

F. A copy of a Notice of the Formation of an Advisory Committee, which was published at 20 State Register 2329 on March 18, 1996, inviting any interested person to attend an initial meeting of the committee.

5. All of the above-mentioned documents have been available for inspection at the Office of Administrative Hearings from the date of filing.

6. The initial period for submission of written comment and statements remained open through October 14, 1997, the period having been extended by order of the Administrative Law Judge to 20 calendar days following the hearing. The record finally closed on October 22, the sixth business day following the close of the comment period.

Both of these dates were announced at the beginning and end of each of the public hearing sessions. Minn. Stat. § 14.15 provides that the record shall remain open for five working days after the close of the initial comment period. Due to an inadvertent error in computing the closing date of the last comment period, the October 22 date which was announced turns out to be six working days after October 14, rather than the five working days provided by statute. This error had the effect of leaving the record open one day longer than the statutory period. When this error was discovered (in late September, after the public hearings), the Administrative Law Judge determined that no member of the public would be prejudiced by the error. The Agency indicated that it had no objection to leaving the record open for the extra day. The Administrative Law Judge decided that the potential harm from leaving the record open an extra day was less than the potential harm that would occur if he tried to notify persons of the correct date and closed the record on October 21. Therefore, the record did remain open until October 22.

Overview of Judge's Analysis

7. Minn. Stat. § 14.50 requires the Administrative Law Judge to take notice of the degree to which the Agency has demonstrated the need for and reasonableness of its proposed rules with an affirmative presentation of facts. Minn. Stat. § 14.14, subd. 2 requires the agency to make an affirmative presentation of facts establishing the need for and reasonableness of its proposed rules. That statute also allows the Agency to rely upon facts presented by others on the record during the rule proceeding to support the proposal. In this case, the Agency prepared an extensive Statement of Need and Reasonableness ("SONAR") to support the adoption of each of the proposed amendments. At the hearing, the Agency supplemented the SONAR, both in prepared statements and also by dialogue with members of the public throughout the hearing session. The Agency also submitted written post-hearing comments, both at the end of the initial comment period and at the end of the responsive comment period.

The question of whether a rule is needed focuses upon whether a problem exists that calls for regulation. In an early case after this requirement of establishing need and reasonableness was first enacted, the Chief Administrative Law Judge adopted the rationale that in establishing the need for a rule "the agency must make a presentation of facts that demonstrates the existence of a problem requiring some administrative attention". See, Report of the Hearing Examiner, In the Matter of the Proposed Adoption of Rules Relating to the Control of Emissions of Hydrocarbons, OAH File No. PCA-79-008-MG, as cited in Beck, Bakken & Muck, Minnesota Administrative Procedure (Butterworth, St. Paul, 1987) at § 23.4.

The question of whether a rule is reasonable focuses on whether the Agency has articulated a rational basis for its solution to the perceived problem. 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, 448 (Minn. App. 1985); Blocher Outdoor Advertising Company v. Minnesota Department of Transportation, 347 N.W.2d 88, 91

(Minn. App. 1984). The Minnesota Supreme Court has further defined the burden by requiring that an 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). An agency is entitled to make choices between possible standards so long as the choice that it makes is a rational one. If commentators suggest approaches other than a rational one selected by the agency, it is not the proper role of the Administrative Law Judge to determine which alternative presents the "best" approach. A rule cannot be said to be unreasonable simply because a more reasonable alternative exists, or a better job of drafting might have been done. The Agency is free, however, to adopt a "better" proposal if it chooses to do so, subject to the limitations set forth in Conclusion 9, below.

In addition to need and reasonableness, the Administrative Law Judge must assess whether the Legislature has granted statutory authority to the Agency, whether rule adoption procedure was complied with, whether the rule grants undue discretion to Agency personnel, whether the rule is unconstitutional or illegal, whether the rule constitutes an undue delegation of authority to another, or whether the proposed language is impermissibly vague.

8. This Report is generally limited to the discussion of the portions of the proposed amendments that received significant critical comment or otherwise need to be examined. Accordingly, this Report will not discuss each subpart of each rule, nor will it respond to each comment which was submitted. Persons or groups who do not find their particular comments referenced in this Report should know that each and every submission has been read, catalogued, and considered. Moreover, because many of the proposed rules were not opposed, and were adequately supported by the SONAR, a detailed discussion of each section of the proposed rules is unnecessary. The Administrative Law Judge specifically finds that the Agency has demonstrated the need for and reasonableness of provisions of the rule that are not discussed in this Report, that such provisions are within the Agency's statutory authority noted above, and that there are no other problems that prevent their adoption.

9. Where changes are made to the rule after publication in the State Register, the Administrative Law Judge must determine if the new language is substantially different from that which was proposed originally. Minn. Stat. § 14.05, subd. 2 and Minn. Rule pt. 1400.2240, subp. 7. The changes proposed by the Agency which differ from the rule as published in the State Register are found not to be substantially different from the language published in the State Register.

Statutory Authority and Nature of the Proposed Rule Amendments

10. It is easiest to consider this rulemaking proceeding as having two separate parts, which are related in a few places, but which basically each stand alone. The first part consists of a variety of different amendments to the State's existing water quality rules, Minn. Rule ch. 7050. Most of them are "housekeeping" amendments. The second represents an entirely new rule, proposed chapter 7052, relating to the Great Lakes Initiative and the Lake Superior Basin.

11. With respect to the amendments to the existing rules, this effort is just another in a series of reviews and changes of the State's existing rules which were first adopted in 1967, and have been revised periodically since then. The most recent revisions occurred in 1993.

12. Minnesota Rules chapter 7050 essentially consists of two parts. One part classifies all waters of the State into different classifications depending on their uses, while the other major part sets forth water quality criteria and standards for each class.

13. The Federal Clean Water Act, as amended, 33 U.S.C. § 1251, et seq., contains numerous provisions which affect the State's rules. Primary among these is the provision contained in section 303(c)(1) which requires each state to hold public hearings and review and revise their water quality standards at least once every three years. That same section gives the Federal Environmental Protection Agency final approval authority over the proposed rules and, ultimately, the power to promulgate rules for the State if the EPA finds that the State has failed to follow the requirements of the Clean Water Act.

14. With regard to the amendments to the existing rules, Minn. Stat. § 115.03, subd. 1(b) authorizes the Agency to classify waters of the State. Minn. Stat. § 115.44, subd. 2 directs the Agency to group waters of the State into classes and adopt classifications and standards of purity and quality therefor. These classifications are to be made in accordance with considerations of best usage in the interest of the public and with regard to a variety of specified considerations. Minn. Stat. § 115.03, subd. 1(c) authorizes the Agency to establish an alter standard for any waters of the State in relation to the public use to which they are or may be put. Minn. Stat. § 115.44, subd. 4 authorizes the Agency to adopt "standards of quality and purity for each classification necessary for the public use or benefit contemplated by the classification".

15. With regard to the new rule which focuses on the Lake Superior Basin, the Agency points out that Minn. Stat. § 115.03, subd. 5 authorizes the Agency to:

perform any and all acts minimally necessary, including, but not limited to, the establishment and application of standards, procedures, rules, orders, variances, stipulation agreements, schedules of compliance, and permit conditions, consistent with, and therefore not less stringent than the provisions of the Federal Water Pollution Control Act, as amended, applicable to the participation by the State of Minnesota in the National Pollutant Discharge Elimination System (NPDES)

As part of the Environmental Protection Agency's Great Lakes Water Quality Initiative (GLI), Congress directed the Environmental Protection Agency to publish proposed and final water quality guidance on minimum water quality standards, nondegradation policies, and implementation procedures for the Great Lakes systems.

Congress also required the Great Lakes states to adopt provisions consistent with the guidance into their water quality standards and NPDES permit programs. As will be discussed more fully below, in 1995, the Environmental Protection Agency published its final water quality guidance (GLI Guidance). The Environmental Protection Agency now requires that NPDES permits issued pursuant to state-developed NPDES permit programs to meet the GLI requirements. 40 C.F.R. § 132.5(i).

16. The Administrative Law Judge concludes that the Agency does have statutory authority to adopt both the proposed amendments to the existing rules and the proposed new chapter relating to the Lake Superior Basin.

Section-by-Section Analysis

Wild Rice Waters

17. The *existing* rule says very little about wild rice as a beneficial use for water. The existing rule does contain a sulfate standard applicable to water used for the production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels. Beyond that, the existing rules pay very little attention to wild rice as an identifiable beneficial use.

18. The *proposed* rule does two things to enhance the regulatory focus on wild rice production. First of all, it lists 24 specific lakes and rivers which are identified as wild rice waters. All of these are in the Lake Superior Basin. Secondly, the proposed rule establishes a narrative standard applicable to those 24 listed waters. It reads as follows:

Wild rice is an aquatic plant resource found in certain waters within the state. The harvest and use of grains from this plant serve as a food source for wild life and humans. In recognition of the ecological importance of this resource, wild rice waters had been specifically identified and listed in part 7050.0460 and 7050.0470, subpart 1. The quality of these waters and the aquatic habitat necessary to support the propagation and maintenance of wild rice plant species must not be materially impaired or degraded.

19. In its SONAR, the Agency explained that these are but initial steps in a broader process intended to provide greater public awareness of the importance of wild rice. The Agency intends, in the future, to identify additional wild rice waters on a statewide basis. In the future, the Agency also intends to integrate wild rice best management practices (BMPs) into existing BMPs already used the state and local agencies in connection with their permit-granting functions for activities such as transportation, forestry and agriculture. In addition, the Agency itself may establish BMPs in permits which it grants pursuant to section 404 of the Clean Water Act, the section 401 water quality certification program, and the NPDES/SES permit program. The integration of wild rice considerations into these BMPs, however, is far from fruition.

The Agency has stated its intent to convene multistakeholder task forces to work on the details. There are many questions still unanswered. It was these unanswered questions which caused commentators to be concerned about the Agency's initial steps. They saw these rules as a "nose under the tent" from an animal they could not be sure would be friendly.

20. The most voluminous set of criticisms came from counties and others, primarily in northwestern Minnesota, who were concerned that protecting wild rice might inhibit their efforts to eliminate problem beaver dams. Rumors had circulated that the Agency was going to impose a permit program which would burden, delay, and perhaps prevent getting rid of nuisance beaver dams. Led by the Minnesota Rural Counties Caucus and the Northern Counties Joint Powers Board, a number of counties voiced their opposition to the wild rice proposals, particularly if they imposed a permitting requirement that would hinder or delay road construction. They had recently convinced the Legislature to enact and fund a grant program for beaver control, and they feared that the requirement of an agency permit would defeat their efforts. The Agency replied that these rules do not contain any permit program "nor is the MPCA contemplating the development of such a permitting program". MPCA Staff Initial Post-Hearing Responses (hereinafter "Initial Responses") at p. 12. The commitment is repeated in the MPCA Staff Final Post-Hearing Responses (hereinafter "Final Responses") at p. 13. The Administrative Law Judge agrees that these rules do not impose any sort of permitting program. The concerns of the counties are premature.

21. The changes proposed in this proceeding were all aimed at protecting *natural* wild rice habitat and production, as opposed to *cultivated* paddy-based wild rice habitat and production. All of the listed waters are in the Lake Superior Basin, and the Agency has asserted that, to the best of its knowledge, that there is no cultivated wild rice production anywhere in the Lake Superior Basin. Nevertheless, cultivated wild rice producers expressed concerns that their interests might be overlooked as the development and application of BMPs developed statewide in the future. They were particularly concerned that the Agency did not show any knowledge of recent studies and existing Best Management Practices applicable to cultivated wild rice production. The Agency responded that it was aware of their existence, had worked with them in the past, and had no intention that these proposed rule amendments would in any way conflict with their operations. The Agency pointed out that to date, it had not required NPDES permits for discharges from cultivated wild rice paddies, and these proposed amendments would not alter that practice. The Agency acknowledged that there already was a set of Best Management Practices for cultivated wild rice, and assured the growers that the BMPs referenced in the SONAR in connection with these rules were focused toward protecting natural wild rice stands, not cultivated ones.

22. A number of cultivated growers submitted comments opposing what they believed to be the Agency's proposal to adopt a ten-milligram-per-liter water quality standard for sulfate in wild rice waters. They argued that this was based on outdated data, and more recent studies of cultivated wild rice had demonstrated growing success at far higher concentrations of sulfate. The Agency responded that it was not proposing

any change to the existing ten-milligram-per-liter sulfate standard in this proceeding, and that the standard had been in effect since 1973. The Agency also acknowledged the existence of the more recent data and stated that it would re-evaluate the sulfate standard and might make changes to it in subsequent rulemaking proceedings. Initial Responses, p. 14.

23. There is an element of market competition and tension between natural wild rice producers and cultivated wild rice producers. As cultivated wild rice has developed over the past few decades, producers have discovered different ways of solving a variety of production problems. Rules which are appropriate for natural wild rice processes are not always applicable, nor necessarily appropriate, for cultivated wild rice. This is true in the opposite direction as well. The Administrative Law Judge urges the Agency to always remember the distinction between the two groups as it proceeds forward to develop statewide BMPs or include waters in the list which might affect cultivated production, rather than just natural production.

24. The Administrative Law Judge concludes that the Agency has demonstrated the need for and reasonableness of its proposed amendments listing wild rice waters and setting a narrative standard for their protection because they apply only to 24 specifically listed waters in the Lake Superior Basin and do not affect cultivated wild rice producers. The Administrative Law Judge further concludes that the ten-milligram-per-liter sulfate standard is not proposed for change in this proceeding, and is thus not "fair game" for legal review at this time.

Other Miscellaneous Changes to Chapter 7050

25. Existing rule part 7050.0470 contains of an exhaustive listing of lakes, rivers, creeks, ditches and other water bodies in the State, along with their classifications. It is broken up into a series of subparts, each of which covers a specific major surface water drainage basin, such as the Lake Superior Basin, the Upper Mississippi River Basin, Minnesota River Basin, etc. Subpart 1 deals with waters in the Lake Superior Basin. The Agency had initially proposed to add a sentence to the introductory portion of part 7050.0460 which indicated that the waters *listed* in subpart 1 which were not designated as outstanding resource value waters or classified as class 7 waters are designated as outstanding international resource waters under part 7052.0300, subpart 3. No person objected to that language. However, the Minnesota Department of Transportation suggested that the rule was silent with regard to *unlisted* waters. They pointed out that there was language in the SONAR suggesting that all waters of the State within the Lake Superior Basin were intended to be classified as OIRW. They recommended that the Agency should clarify this ambiguity. In response, the Agency has proposed to add language to part 7050.0460 to make explicit that unlisted waters and wetlands located in the Lake Superior Basin are also designated as OIRW. The Agency gave notice of its intent to make this clarification in its initial comments, and no person objected to it. It is consistent with the SONAR, as well as with the Agency's oral "opening statement" offered at the start of each hearing session. Ex. 31. The Administrative Law Judge concludes that the addition of this language has

been justified as needed and reasonable, and it does not cause the rule to be substantially different from the rule as initially published within the meaning of Minn. Stat. § 14.05, subd. 2 (1996, as amended).

26. The existing rule contains limitations on "new or expanded discharge" in a variety of circumstances, and thus also contains a definition of "expanded discharge". Lake Superior Paper Industries urged that this definition should not include a modified discharge "if the change does not cause the impact of that discharge to increase". LSPI suggested that the existing definition should be modified to add a condition which would provide "expanded discharge means . . . a discharge that changes in volume . . . such that the discharge has a greater impact than before the change". The Agency is opposed to adding this language because it would substantially alter the expanded discharge test. It would require a determination of whether the loading of one or more pollutants had increased, and also a determination of the impact of that loading before and after the change in discharge. The Agency noted that there are some situations, particularly in the GLI portion of the rule (chapter 7052) where the mere presence of GLI pollutant in a discharge is sufficient to trigger various GLI requirements. If the language proposed by Lake Superior were added, it would be necessary to demonstrate whether or not the impact had changed, *and* that any change in impact was due to the particular discharger involved. The Agency suggests that this would be a substantially different requirement than that initially published, and that it would be contrary to the GLI, as well as to the Agency's existing process. The Administrative Law Judge concludes that the Agency has demonstrated that its proposed definition is needed and reasonable without the addition of the language proposed by Lake Superior Paper. The costs and burdens imposed by Lake Superior Paper's proposed addition would no doubt be subject to substantial comment if the public had been aware of them. If they were to be added to the rule, they would constitute a substantially different rule.

New Chapter 7052 for the Lake Superior Basin

Background

27. The five Great Lakes are a unique feature of global geography. Their collective physical size and volume is unmatched by other fresh waters. They fostered economic development before the advent of European settlement. Later major cities and industries grew along the Lake's shoreline utilizing the Lakes to move raw materials, agricultural products and finished goods to world markets. Commercial development has resulted in varying degrees of water pollution within the Lakes.

28. Lake Superior is the largest, deepest and is regarded as the least polluted of the Great Lakes. Despite these features, it too bears the traces of human activities. A variety of dischargers contribute to the existence of pollution in the lake. Two factors

are of particular concern. First, Lake Superior has an extraordinary long residence time. It has been estimated that it will take 400 years for 90 percent of the substances presently dissolved in the lake to be removed. Secondly, the lake already has measurable concentrations of some bioaccumulative toxic pollutants. What begins as a minute, insignificant particle of one of these becomes detrimental to human health through the factors of persistence and concentration. These substances are known as “bioaccumulative chemicals of concern” (BCCs) for their ability to persist, aggregate in the food chain and gain increased toxicologic impact. Because of BCCs, the Minnesota Department of Health has had to issue fish consumption advisories to the public. The advisory for Lake Superior warns consumers, that due to bioaccumulation of detrimental chemicals, they should limit their intake of some fish.

29. In recognition of their common pollution problem, the eight Great Lakes States pledged a cooperative effort to create a regional response. In 1986, the governors of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin signed the Great Lakes Toxic Substances Control Agreement. The Governors’ Agreement, as it became known, committed the States to the pursuit of high standards of water quality, reduction of toxic pollution to the maximum extent possible and conformity of regulation. The latter goal did not intend uniform standards, but rather comparability in economic effect. The governors directed their respective environmental protection agencies to develop a joint plan to control the release of toxic substances into the Great Lakes. In 1989, the Great Lakes States in cooperation with the U.S. Environmental Protection Agency (EPA), developed the Great Lakes Initiative (GLI). The GLI was intended to be the implementation scheme for the mutual pollution control and reduction measures.

30. The GLI has been incorporated into Section 118(c)(2) of the federal Clean Water Act (CWA). The CWA was amended by the Great Lakes Critical Programs Act (GLPA) of 1990 (Public Law 101-596, November 16, 1990). The GLPA required the federal EPA to develop a Great Lakes Water Quality Guidance. That Guidance was to comply with the goals and terms of the U. S. and Canadian Bi-national Great Lakes Water Quality Agreement, the CWA, and other national water quality criteria and guidance.

The GLI Guidance

31. The Guidance was promulgated “to protect human health, aquatic life, and wildlife.” Its scope is three-fold:

1. “[I]dentifi[cation of] minimum water quality standards,
2. anti[non]degradation policies; and
3. implementation procedures.”

40 C.F.R. § 132.1(a). (The MPCA uses the term nondegradation synonymously with anti-degradation.) The Great Lakes States were granted two years from the date of final Guidance publication in the *Federal Register* to adopt standards or to accept EPA

promulgated requirements. The draft Guidance was published on April 16, 1993. 58 Fed. Reg. 20802. The EPA received over 26,500 pages of comments from over 6,000 entities and persons.

32. The Final Water Quality Guidance for the Great Lakes System (GLI Guidance) was published on March 23, 1995 and is codified in 40 C.F.R. § 132. The preamble to the Guidance listed six foundational principles for the final Guidance:

- a. "Use the best available science to provide protection to human health, wildlife, and aquatic life.
- b. Recognize the unique nature of the Great Lakes Basin ecosystem.
- c. Promote consistency in standards and implementation procedures while allowing appropriate flexibility to states and tribes.
- d. Establish equitable strategies to control pollution sources.
- e. Promote pollution prevention practices.
- f. Provide an accurate assessment of costs and benefits."

40 Fed. Reg. 15,366, 15,368-72 (1995).

33. The GLI established default "criteria, methodologies, policies, and procedures." 40 C.F.R. § 135.5 (a). In the absence of a state or tribe developed criteria, methodology, policy, or procedure the EPA/Guidance standard would be promulgated. The Guidance standards are minimum acceptable requirements. The Guidance provides states and tribes with the ability to develop more stringent standards. State developed standards must be consistent with the Guidance (and therefore with the other Great Lakes States). The EPA defines consistency to be "as protective as" the Guidance. Any downward departure from the "as protective as" standard will result in a substitution of the Guidance standard by the EPA. 40 C.F.R. § 132.1(c).

34. Section 131.6 of the GLI establishes the minimum requirements that the MPCA is to include in a permissible water quality program. The elements of such a program include:

1. Use designations and water quality criteria sufficient to protect the designated uses.

2. An antidegradation [nondegradation] policy consistent with section 131.12.”

Development of Special Water Quality Use Designations for the Lake Superior Basin

35. The MPCA's existing rules currently contain two designations within the Lake Superior Basin. First, there is Outstanding Resource Value Water-Prohibited. These include the waters within the Boundary Waters Canoe Area Wilderness and other waters of scientific or natural significance designated by the Minnesota DNR (MDNR). New or expanded discharge of sewage, or other waste is prohibited in these waters. Minn. R. ch. 7050.0180, subpart. 3.

Secondly, there is Outstanding Resource Value Water-Restricted 7050.0180, subp. 6. Presently Lake Superior is designated as an ORVW-restricted water. These waters may receive new or expanded discharges under two types of limitations:

1. only when the MPCA determines that there is “no prudent and feasible alternative. . . .” and;
2. even when it is compelled, it is to be restricted “to the extent necessary to preserve the existing high quality, or to preserve the wilderness, scientific, recreational, or other special characteristics. . . .” Minn. R. Ch. 7050.0180, subpart 6.

36. The MPCA is proposing a new special designation scheme to protect the Lake. The classification level would determine the amount, source and type of substances permitted to be discharged. The nondegradation policies are directed at a subset of bioaccumulative chemicals of concern (BCC), called bioaccumulative substances of immediate concern (BSIC). Proposed section 7052.0353 incorporates by reference the nine BSIC elements and compounds.¹ The appropriate level or degree of protection has generated considerable comment.

37. The 1991, U.S. and Canadian *Bi-National Program to Restore and Protect the Lake Superior Basin*, included a commitment by the governors of Michigan, Minnesota and Wisconsin to designate all Lake Superior Basin waters an Outstanding International Resource Water (OIRW). Certain special waters in the Lake’s tributary basin would receive the more stringent, Outstanding National Resource Water (ONRW-Binational) identification. The latter, ONRW-Binational, “designation would prohibit any new or expanded point source discharges of . . . BSICs”. SONAR at 10.

¹ The nine targeted bioaccumulative substances of immediate concern are: Mercury, Chlordane, DDT and metabolites, Dieldrin, Dioxin (2,3,7,8-TCDD), Hexachlorobenzene, Octachlorostyrene, PCBs, and Toxaphene. The full list of 138 BSICs and BCCs are incorporated from and found in 40 C.F.R. § 132.6, Table 6.

38. The ONRW-Binational designation is similar to the ONRW-federal designation in the CWA. However, it differs in that it only addresses BSICs from new or expanded point source discharges. SONAR Appendix A-7.

39. The Lake Superior States are permitted, by the Guidance, to designate the Basin either a Outstanding National Resource Water (ONRW-federal), 40 C.F.R. § 132 App. E (II)(E)(1), or Outstanding International Resource Water (OIRW). 40 C.F.R. § 132 App. E(II)(E)(2). OIRW was developed as an alternative to the federal ONRW. It seeks to minimize the discharge of BSIC's into the Lake basin without imposing an absolute moratorium on economic growth. The OIRW designation promotes nondegradation through a scheme known as best technology in process and treatment (BTPT). The Agency views the OIRW designation as the more protective in that its broader coverage includes both point and nonpoint source discharges of all pollutants. The ONRW designation applies only to point source discharges of BSICs. There was additional concern that spot imposition of an ONRW designation in selected Basin areas would be defeated by the mixing action of the Lake and commingling of waters.

40. The MPCA Rule proposal is to retain the existing ORVW designations for the Lake Superior Basin. In addition, the Agency proposes to address BSICs by designating all other Lake Superior Basin waters -- which are presently use classified 6 or better -- as OIRW. (Existing Class 7 waters are expressly excepted from inclusion unless they flow into a Class 2 water. In those instances of a discharge into a Class 7 water and subsequently into a Class 2 water the discharger is required to complete a nondegradation demonstration as if the discharge was directly into the Class 2 water.) SONAR at 139, 143.

41. The Clean Water Act and the GLI contemplate joint State and Native Tribal water quality program planning and administration. The State of Minnesota and the Grand Portage Band of Chippewa have entered into a memorandum of agreement. That agreement requires the Agency to change the designation of that specific portion of Lake Superior which abuts the Grand Portage Reservation. Rather than the current ORVW-Restricted designation, those waters would be designated ORVW-Prohibited by the proposed Rule. The Agency proposes to make that change as a part of this proceeding.

Proposed Alternative Designations for the Lake Superior Basin

42. Previous to the publication of the draft rules and SONAR, and later at the hearings and throughout the comment periods there has been considerable citizen support for the adoption of a more protective designation scheme than what the Agency has proposed. On October 25, 1996, a formal Petition was filed with the Agency seeking designation of Lake Superior and the Lake Superior Basin as an Outstanding National Resource Water. This petition was filed by the National Wildlife Federation and Great Lakes United. Ex. 22. The Agency and others in the proceeding refer to their proposal as "ONRW-NWF".

43. ONRW-NWF designation is directed at 56 polluting substances. SONAR at A-8. Beyond the nine BSICs, the NWF proposal addresses additional “bioaccumulative toxics that have been identified as having the potential to cause adverse impacts on Lake Superior, as well as those that already are known to cause impacts.” Ex. 22, at 7 (hereinafter NWF Petition). The NWF argues that ONRW-NWF is the first step to a zero discharge state. Its focus is on a freeze at existing levels of bioaccumulative toxic discharges into Lake Basin waters and a prevention of new or expanded discharges from both point and nonpoint sources. NWF Petition at 6. Attrition would gradually reduce the existing discharges to zero. This proposal also addresses pollution caused or exacerbated by airborne precipitates. The NWF notes that 90 percent of “some persistent toxic chemicals” are deposited in the Lake from airborne precipitation. NWF Petition at 6.

44. Industry, some municipalities and other currently-permitted dischargers raised concerns that NWF proposed designations were too stringent and would kill future growth, as well as impose burdensome costs to their continued operations.

45. Another proposal suggested the adoption of the ONRW-NWF designation first and then introduce flexibility by either:

- a. granting variances to those dischargers who were unable to adjust to a prohibition, or;
- b. a graduated phasing in of the ONRW-NWF designation and standards.

46. Another proposal considered was limiting the application of the ONRW-NWF designation to only new dischargers. Some participants suggested that the Agency promulgate a version of ONRW that, while applying to new and expanded point and nonpoint dischargers, would be limited to just BSICs.

47. The MPCA conducted numerous discussions with the NWF with the intent of better understanding the ONRW-NWF proposal. In the context of water quality standards and nondegradation, the Agency remained unsatisfied that ONRW-NWF was appropriate and feasible at this time. The Agency agrees that ONRW prohibited new and expanded and eventual zero discharge states are appropriate long term objectives. The OIRW/ORVW designation scheme does not foreclose eventual adoption of stricter designations.

48. The MPCA listed several reasons in support of its proposed designation scheme. The discharge of persistent bioaccumulative substances are a genuine hazard for human, aquatic and wildlife vitality. Fish consumption advisories provide one example of a protective response to the presence of these substances in the water. The immense size of the Lake combined with the persistent qualities of these substances inhibits timely natural cleansing. An artificial cleansing program would be

similarly costly in time, resources and futile without concurrent discharge controls. Additionally, over the course of four days of hearings, and in the comments received in response to the Agency's Notice of Proposed Rulemaking, the overwhelming sentiment of the commentators was supportive of limitations on the introduction of BCC pollutants into Lake Superior. Several persons spoke of voluntary limits on discharges. However, even they agreed that special designations and nondegradation measures would support economic vitality and pollutant control in the Basin. Furthermore, Minnesota is under mandate from the federal EPA to implement rules consistent with the GLI Guidance or have national rules imposed upon it. 40 C.F.R. § 132. 1 (c). Principals of responsible governing promote the consideration of homegrown rules rather than acquiescent acceptance of generic federal rules. In addition, the State as a signatory to the Bi-National Program is committed to concerted efforts to curtail Great Lakes pollution. Moreover, a major premise of the Great Lakes Initiative is equalization of the economic effect of environmental regulation. The Great Lakes States understand that common -- or similar -- water quality rules will diminish any possible economic advantage accruing to a particular locality from less stringent standards. The Administrative Law Judge finds that the MPCA has established a need for water quality rules protective of the Lake Superior Basin.

49. Traditionally, the Agency's water pollution control efforts focused more on conventional effluent. The Agency admits that the science of measuring and detecting the presence of persistent BCCs in effluent discharge is relatively new to its experience. The Agency submits that "best technology in process and treatment" (BTPT) recognizes that the science and technology of detection and control is a step behind its desire to rid the lake of BCCs. Oftentimes persistent BCCs are discharged at concentration levels below the technical ability of monitoring equipment to record their presence. The Agency also notes that many dischargers do not presently have the technical means to freeze their discharges at current levels or to expand facilities without increasing discharges.

50. As the Agency has come to understand the ONRW-NWF proposal it argues that the latter is too reliant on the ability of existing point source dischargers to achieve reduced emissions. It also asserts that the OIRW/ORVW designations together with BTPT are the superior options. The Agency noted that since it first established the ORVW classification state-wide, in 1984, it has only processed nine requests for a demonstration to allow a new or expanded discharge. The Agency believes that the demonstration process is so rigorous that the prudent discharger creates alternatives to having to provide a demonstration. The Agency cited a recent example: The new Castle Danger/Silver Creek Township wastewater treatment facility was sited away from the Lake to avoid a nondegradation demonstration. In fact the Township, unilaterally, brought a previously existing discharge into the new plant to curtail that source of Lake pollution. Furthermore, the proactive entity will seek methods and procedures in anticipation of more stringent future regulations. The Agency added that municipalities and industries recover costs by finding more effective methods for pollution control. These marketplace incentives, it reasons, will spur continued development of leading-edge technologies.

51. Commentators from the regulated community presented clear real world examples of the practical difference between the prohibitions of ONRW-NWF and the flexibility of OIRW with respect to new or expanded discharges. A taconite processing plant which presently discharges effluent under a permit into a creek would not be able to move that discharge to another creek because it would be a new discharge. This scenario would exist even if both creeks flowed into the same intermediate water on their way into the Lake and the net effect of the respective discharges, on the Lake, would be the same. Tr. 9/24 at pp. 74-75. Another example was offered to show the inflexibility of a discharge freeze. The Grand Marais Terrace Point Development Private Wastewater Treatment Facility supports a restaurant, inn and condominium complex. The development is presently operating below the level necessary for full waste treatment operation. Instead, the sewage is being trucked to the Grand Marais Wastewater Treatment Plant. If a new or expanded discharge freeze is in effect when the development becomes fully operational the new treatment facility would be considered a new discharge point. The private facility would be prohibited from eventual operation. Id.

52. The Agency offered two similar examples in the SONAR. A hypothetical hospital within the Basin that was desirous of a 30 percent expansion could be limited in its abilities to grow by ONRW-NWF designation. If its wastewater treatment facility had already responsibly undertaken to reduce the presence of BSICs in its inflow of water, it would not be allowed to accept the increased outflow of BSICs from the expanded hospital. This example illustrates what the Agency considers a major flaw with ONRW-NWF. Those entities who have already proactively taken steps to reduce BSIC discharges would be capped at that level. Thus they would be prevented from growth due to their previous good faith efforts. Their more recalcitrant competitors, however, would be able to reduce some discharges to accommodate expansion. Another hypothetical offered by the Agency demonstrates the possible comparative effect of the respective proposed rules. A storage battery manufacturer intent on locating in the Lake Superior Basin would pose a problematic potential for the discharge of mercury. Such a facility would be expressly prohibited by ONRW-NWF. In the ORVW-Restricted scheme a “no prudent and feasible” demonstration would be necessitated. That permitting process would explore alternative siting locations to Lake discharge. If an alternative location was chosen inland within the Basin, the proposed facility would have to adopt BTPT. Similarly a prohibition of new or expanded discharges focuses on the gross emissions of the entity. This prevents the discharger from making technically possible improvements to existing processes in order to introduce new or to expand existing processes even though they would be maintaining the same net discharge level.

53. The advocates of ONRW-NWF advance the proposition that ONRW is compelled by the Guidance. In response the Agency points to Guidance Appendix E (II) (E) contains “special provisions for Lake Superior.” It states that a State, “*may* designate *certain specified areas* of the Lake Superior Basin as. . . Outstanding Natural Resource Waters for the purpose of *prohibiting* the new or increased discharge

of Lake Superior bioaccumulative substances of immediate concern from point sources *in these areas* (emphasis added). 40 C.F.R. § 132, Appendix E (II)(E)(1). Alternatively or in concert with ONRW the Guidance continues, “States . . . *may designate all waters* of the Lake Superior Basin as Outstanding International Resource Waters for the purpose of *restricting the increased* discharge of . . . bioaccumulative substances of immediate concern from point sources. . . .” (emphasis added). 40 C.F.R. § 132, Appendix E (II)(E)(2). Clearly the Guidance envisions that ONRW need not be the exclusive special designation. Instead, OIRW may apply to the entire Lake. Nor does the Guidance dictate that a State prohibit new or increased discharges throughout the Lake. The Guidance provides the Agency with the flexibility to adopt a program that best suits its ascertained needs and regulatory abilities. The Administrative Law Judge concludes that the Agency reading of the ONRW versus OIRW options as described in the Guidance is reasonable.

54. The GLI Guidance requires that all of a state’s water quality rules shall be consistent with the Guidance. The Guidance establishes the minimum standards with which all of the States must harmonize. The Agency notes that this requirement serves to maintain a uniform pollution control effort among the States. Any State which departs downward from an acceptable standard should be brought into line by the EPA. In addition to a unified nondegradation rationale, the goal of consistency of regulation serves another objective of the Great Lakes Governors. They reasoned that they would all benefit economically from similarity of Great Lakes environmental regulation. Consistent standards would prevent one state from acquiring an economic benefit from another while shifting the environmental detriment. The Agency’s dual OIRW/ORVW scheme supports this objective. It would be surprising for the Agency to propose prohibitionist rules in the absence of similar standards among the Great Lakes neighbors. Going to ONRW-NWF immediately would certainly be viewed by the EPA as being “as protective as” other special designations. However, as noted earlier, it would have the effect of severely limiting the ability of industrial and municipal dischargers to modify or adapt their operations. Depending on what other states decide (and how strict EPA will be in reviewing their actions), Minnesota could be economically disadvantaged.

55. Minn. Stat. §§ 115.43, subd. 1 and 116.07, subd. 6 both impose a unique requirement on the Agency that is not imposed on other state agencies -- that the MPCA must give “due consideration” to the establishment, maintenance, operation and expansion of business and commerce as the Agency exercises its powers. This choice of special designations is an example of where the Agency has considered economics. See SONAR, pp. 152-53. It is also an example of balancing a variety of environmental and social factors in setting the state’s policy. Such policy issues are particularly within the informed discretion of the Agency, which deserves deference when it has been shown to have a rational basis. See Finding 7, above.

56. The Administrative Law Judge finds that the Agency has presented a rational basis for its regulatory approach to the special designation issue, and its proposal may be adopted.

Particular Issues Regarding Details of GLI Implementation

Definition of BCC

57. Proposed rule part 7052.0010, subp. 4 contains the definition of a BCC. The definition consists of a formula test, which if met, appears to result in a chemical being classified as a BCC. The rule does not contain a list of BCCs (although it refers the reader to part 7052.0350 for such a list). Minnesota Power and Western Lake Superior Sanitary District both were concerned that a chemical in their discharge might, in fact, meet the formula test contained in the definition, but they would be unaware of it and thus would be unknowingly discharging a BCC. They urged that the Agency be required to go through rulemaking before a substance could be classified as a BCC. MPCA staff replied that they intended the same result as Minnesota Power and Western Lake Superior Sanitary District, in that they intended the list in part 7052.0350 to be the exclusive list of BCCs and "therefore, to be considered a BCC, a pollutant must both meet the definition and be listed in part 7052.0350." Final Responses, p. 30. The Administrative Law Judge concludes that the rule is ambiguous and, therefore, impermissibly vague. It must be clarified to assure that readers know that the list is exclusive and that they can rely on it to determine whether or not a chemical is a BCC. One way to cure this defect would be to add the following sentence to the end of the BCC definition in part 7052.0010, subp. 4:

A chemical may not be treated as a BCC for purposes of this chapter unless and until it is added to the list in part 7052.0350.

Automatic Incorporation of Other States' Rules

58. Part 7052.0015 contains a list of federal regulations and publications which are incorporated by reference. Minnesota Power, the Minnesota Chamber of Commerce, and Northshore Mining all proposed that the list be expanded to indicate that any other states' methodologies or implementation procedures which had been approved by EPA as part of a state GLI implementation plan would be automatically added to the list of documents incorporated by reference so that the procedures would be available to Minnesota dischargers. They reason that once EPA has approved a methodology or procedure, EPA has implicitly said that it is at least as protective as GLI guidance. If that is the case, the commentators argue, then the procedure should be available to dischargers in all GLI states so that the economic competition between one state and another could be avoided.

59. The Agency opposed this idea for a number of reasons. They pointed out that a generic incorporation by reference would not allow it to review other states' procedures to determine if they were appropriate for the Minnesota portion of the Lake Superior Basin, particularly because other states' procedures might well be based on site-specific data generated for a different lake having far different residence times and other characteristics. In addition, provisions from other states could conflict with

provisions in Minnesota's statewide water quality rules schema and cause conflicts between existing state rules and the incorporated procedure.

60. The Administrative Law Judge concludes that the Agency has demonstrated that its proposed rule, without the addition proposed by the commentators, is reasonable. To date, EPA has not approved any state rules, and thus we have no idea what might be approved or not approved. Moreover, a procedure might make sense in the context of a state's total package of rules, but when you take that one procedure out of the package and transport it into a different state's scheme, it might make no sense at all. It is far more reasonable to allow the Agency to review a proposal from another state and determine whether or not it could be used in the context of Minnesota's overall scheme, rather than to allow it to be imported without that kind of analysis and review.

Fish Consumption Assumptions

61. Part 7052.0110 sets forth methodologies for development of standards and criteria, and bioaccumulation factors. It lists exceptions to some of the assumptions used in the GLI guidance methods, which exceptions are based on Minnesota-specific data. One of the deviations from the federal guidance has to do with human consumption of fish. The GLI guidance assumes human fish consumption at a rate of 0.015 kg/day. This was based, in part, on a survey study based on people who fished in Lake Michigan. That study concluded that the average sport fish consumption for the Michigan area is 14.5 grams per day. However, the Michigan study also found that the 80th percentile for sport fish consumption was about 0.030 kg/day. That is the same result reached in sport fish consumption data from Wisconsin and Ontario -- that the 80th percentile for sport fish consumption is 0.030 kg/day. In 1990, when the Agency's technical advisory committee was considering revisions to chapter 7050, it reviewed that data and determined that it was more appropriate to protect 80 percent of consumers, rather than just 51 percent. That committee chose a fish consumption rate of 0.030 kg/day, which can be found in the Agency's existing rule at part 7050.0218, subp. 6. That same rationale led the Agency to depart from the GLI guidance in this rulemaking proceeding, and raise the fish consumption assumption from 0.015 kg/day to 0.030 kg/day.

62. No person objected to the Agency's failure to follow the federal assumption. However, the National Wildlife Federation and the Minnesota Conservation Federation, supported by a substantial group of sport, conservation, and environmental groups, urged that Minnesota go even further, and adopt a 0.050 kg/day assumption in order to protect a higher percentage of persons, citing particularly sensitive populations such as Native American and other subsistence fishers and avid anglers. In response, the Agency produced a review of available scientific evidence to support its proposed fish consumption level. This included a U.S. Department of Health and Human Services' Agency for Toxic Substances and Disease Registry survey of methylmercury blood levels of members of the Fond du Lac Band of Chippewa in northern Minnesota. The Fond du Lac Reservation is bordered on the north and east by the St. Louis River.

The study looked at fish consumption habits of over 1500 Band members and found that 89.7 percent consumed less than 1 meal per week of fish, which was equated with 0.032 kg/day. Another 6.7 percent of the Band members studied consumed, on average, 1 meal per week. Adding those two together produces a total of 96.4 percent of the Band which ate 0.032 kg/day or less. The remaining 3.6 percent ate 2 meals per week or more. This data is taken from Table 3, at page 41, of the survey, which is Attachment 15 to the Agency's Initial Responses.

63. The Agency argues that the assumption at issue applies Basin-wide, not just to particularly sensitive populations. The Fond du Lac survey data, of a presumably sensitive population subgroup, supports the Agency's choice for a Basin-wide assumption. Nonetheless, the Agency does concede that there are particular sub-populations which consume greater amounts of fish than the average Basin-wide. To address this, the Agency does have a proposal for site-specific modifications to a standard in order to protect highly exposed sub-populations. Part 7052.0270, subp. 7 provides that the Agency "must" modify human health standards or determine criteria on a site-specific basis to provide additional protection for highly exposed sub-populations. The proposed subpart specifically mentions increased fish consumption rates. The Grand Portage Tribal Council indicated support for this provision but was concerned that it did not contain deadlines or other details of how site-specific modifications would be implemented. The Agency responded in its Initial Responses with a plan and expressed its willingness to review evidence and consider a site-specific modification.

64. The Administrative Law Judge concludes that the Agency has demonstrated both the need for and reasonableness of its 0.030 kg/day assumption for human fish consumption. While reasonable people can differ over whether a line should be drawn at 90 percent, 95 percent, 97 percent, or 100 percent, drawing that line is particularly an exercise of Agency expertise, and so long as the Agency has a rational explanation for its assumption, it meets the standard of reasonableness. See Manufactured Housing Institute v. Pettersen, 347 N.W.2d 238 (Minn. 1984) and cases cited therein.

65. The existing water quality rules in chapter 7050 contain a provision for mixing zones. Put briefly, a mixing zone determines where the measurements are taken to determine whether or not a discharge is causing a water to exceed a specific standard. Rather than measure at the point where the discharge enters the water, in some cases there is a mixing zone of a specified size, and the measurement is taken at the edge of that zone.

66. When federal (and state) policymakers were debating the terms of GLI implementation, one of the issues that was discussed at some length was whether or not mixing zones should be allowed for BCCs, based on the theory that BCCs are persistent and bioaccumulate, and thus are of concern regardless of whether they are diluted to a point where they are below some standard at the edge of a mixing zone. The result of these discussions was that the guidance, and the Minnesota proposal, contain three basic features. Basically, they prohibit the use of mixing zones for BCCs

in the case of new or expanded discharges. Secondly, they provide that mixing zones for existing discharges of BCCs must be phased out by the year 2007. Finally, they contain exceptions, waivers, and other "outs" for certain specified situations.

Mixing Zones

67. Two of the major bones of contention between the Agency and industry occurred as a result of a court decision issued by the United States Court of Appeals for the District of Columbia Circuit in June of 1997. In that case, entitled American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979 (June 6, 1997), the American Iron and Steel Institute and the National Wildlife Federation petitioned separately for review of the EPA's GLI guidance. While the court upheld much of the guidance, it did vacate a portion of EPA's guidance that banned mixing zones for BCCs. This action was taken because the court found that EPA had failed to consider the ratio of cost to benefit and determine whether or not the mixing zone ban was cost-justified. The court remanded the mixing zone portion of the rule back to the EPA so that EPA could make a new decision regarding the ban based upon consideration of cost factors. In response to the court decision, U.S. EPA issued a memorandum to the EPA regional offices which suggested that "in part, because of the extensive and complicated record, the court was not able to fully evaluate" EPA's cost analysis. EPA indicated that it intended to reinstate the provision in the final guidance and that it "recommends that states retain this provision in their adoption packages".

68. The MPCA agreed with EPA's recommendation, and retained the mixing zone provision in its proposed rules. This drew criticism from a number of industrial dischargers, but support from environmentalists. The basic thrust of the criticism was that there was no telling when, and in what form, EPA would finally be allowed to reinstate the provision in the guidance, and that industry expected to challenge EPA again when it tried to do so. They argued that to ignore the court decision in the context of this particular federal-state relationship was improper and constituted a prejudgment of the federal rulemaking process and litigation.

69. In response, the Agency pointed out that policymakers on both the federal and state level had determined to prohibit mixing zones in the case of newer expanded BCC discharges, and phase them out by the year 2007 in the case of existing discharges, as part of a loading reduction scheme whereby additional BCCs would not be placed into the lake. The Agency has made its own economic evaluation of the provision (see SONAR, pp. 46-51) and thus the court's finding of flaws in the EPA's cost studies should not affect the validity of the state's studies. Finally, the Agency argued that the EPA strongly supports the provision and intends to repromulgate it soon, has urged the states to retain it, and, in fact, a review of other state's reactions indicates that all of the Lake Superior states intend to include the mixing zone prohibition for new and expanded discharges, and have either included the phase-out for existing dischargers, or have indicated their intent to do so in the future, depending upon EPA's response.

70. Reliance on what other states are doing in response to the court decision was criticized by Minnesota Power, who suggested that although Michigan had initially included the phase-out provision, it was in the process of beginning a new rulemaking to reconsider whether or not it should be included. Wisconsin, as MPCA had indicated, did not include the phase-out for existing dischargers in its rule, but rather referred to it in a footnote that was in the nature of a warning to dischargers that, depending on the outcome of the federal litigation, the phase-out might be imposed on them at some later date.

71. The Administrative Law Judge concludes that the Agency has justified the need for and reasonableness of its proposal to retain the mixing zone provisions in the rule, but that this matter presents a unique policy question which the Agency must resolve in the final instance. If other Lake Superior states do not maintain the provision in their rules, or maintain it (as Wisconsin has) only as a warning, then existing Minnesota dischargers will be forced to incur costs that will not be uniform in Lake Superior, let alone throughout the other Great Lakes. How much weight should be given to maintaining consistency with neighboring states is a question which is uniquely within the province of the Agency, as it is more a matter of policy than of law. The Administrative Law Judge is not aware of any law, either federal or state, which would prohibit Minnesota from enacting provisions which are more stringent than those enacted in neighboring states. Instead, it is a policy decision which the Agency must make. The Agency may want to consider a recommendation from Minnesota Chamber of Commerce that since the MPCA already has an advisory committee working on recommendations for the next triannual review of the water quality standards, this subpart could be deleted and be included in the next triannual review if the EPA has been successful in its anticipated rulemaking.

Water Quality-Based Effluent Limitations

72. WQBELs (water quality-based effluent limitations) are applied to individual dischargers to ensure that the ambient water quality standards set forth in the rule are maintained. They are computed using a variety of data, including water quality standards, waste load allocation inputs, and effluent variability. They incorporate elements of magnitude, duration and frequency. Not all dischargers have WQBELs associated with them. For some of them, it is not practical or even possible to calculate WQBELs. This would be the case for spills and certain contaminated ground water remediation work. The Agency has been deriving WQBELs for toxic pollutants since 1990. Past and current permits contain WQBELs that were calculated using the same procedure as advocated in this proceeding, including the recently reissued Western Lake Superior Sanitary District (WLSSD) permit. Ex. 90.

73. Part 7052.0220 deals with reasonable potential for chemical-specific WQBELs. It directs the Agency to compute a WQBEL and insert it in a permit if it determines that a GLI pollutant is or may be discharged to waters of the state at a level that causes, has the "reasonable potential" to cause, or contributes to an excursion above a water quality standard or criterion. The whole point of the "reasonable

potential" determination is to decide whether a WQBEL is necessary for a particular discharge. It is an attempt to provide a logical, statistical basis for making a decision about the need to include a WQBEL. The process for developing a WQBEL is a complicated one, and the Agency's proposal drew a number of criticisms from industry and a few from the environmental community.

74. The most common criticism comes as a result of EPA's announced intention to revisit a number of the issues in the year 2002 timeframe. This is because a number of the more difficult issues are phased in to 2007. Half way to that point, or 2002, EPA would examine how the process was going and determine whether to leave provisions in place, alter them, or eliminate them. The first of these issues has to do with intake credits. Intake credits are designed to provide some relief (or "credit") for discharges that draw intake water from a water of the state that is not meeting the water quality standards. For example, the Agency anticipates that WLSSD, which withdraws intake water from Lake Superior, the St. Louis River, and ground water, is likely to be the only facility which will request an intake credit in the near future. Low level monitoring data has shown the St. Louis River is not meeting the proposed mercury standard, and thus water taken from it would not meet the standard. SONAR, at p. 52. EPA's announced intention to revisit this issue in 2002 caused Minnesota Power, Potlach, US Steel, Iron Mining Association and others to suggest that the 2007 phase-out for intake credits should be deleted from the rule or the rule should otherwise be altered to accommodate future EPA action. Minnesota Power, for example, would delete the reference to 2007 in subpart 5E. and replace it with a note, indicating EPA's intention to revisit the matter in 2002 and consider possible extensions. The note would place interested persons on notice that MPCA will consider modifying these rules to incorporate a phase-out date depending on what EPA determines. The Administrative Law Judge believes that the rule is reasonable without any change to deal with the EPA 2002 review. However, should the Agency desire to insert some sort of note or other explanation to suggest that the 2007 date might change, the Agency is free to do so. But there is no defect which the Agency is required to cure.

75. A related question which arose concerns one of the requirements for using an intake credit -- that where the intake pollutant in a facility's discharge originates from a water that is *not* the same body of water as the receiving water, then certain procedures must be followed. Subpart 6 of the proposed rule deals with the question of what is the "same body of water". GLI guidance contains a series of tests, which the Agency has adopted. In addition, the Agency added a sentence to explain how it intended to apply one of the criteria. That sentence drew no criticisms, but Minnesota Power and Potlach both proposed additional language which would allow intake credit to be available in a situation where a permittee took water from Lake Superior but discharged it to a tributary, so long as the background concentration of the intake pollutant in the tributary was equal to or greater than the concentration in the lake water, and any difference in a water quality characteristic (such as temperature, pH or hardness) would not result in an adverse impact on the tributary. Minnesota Power indicated that they wanted this addition so that dischargers would know, well in

advance, whether intake credits would be available to them when planning for future growth.

76. The Agency opposed this addition, pointing out that one of the existing criteria for determining whether or not one body of water is the same as another is similarity in water quality characteristics, for example, temperature, pH and hardness. In their final responses, the Agency indicated that one means by which it identified waters of similar water quality characteristics is through the water classification system of part 7050.0200 (wherein waters are classified according to their beneficial uses). The Agency went on to say:

The current classification system for tributary waters in the Lake Superior Basin may be different than that for Lake Superior. For example, Lake Superior is classified as a 2A cold water fishery, whereas the St. Louis River is classified as a Class 2B warm and cold water fishery. Thus, these waters do not have similar water quality characteristics and therefore are not the "same body of water".

The language proposed by the commentators could result in waters that have different water quality characteristics being deemed as "same body of water". This conflicts with the "same body of water" definition in the GLI guidance and therefore could be considered by EPA to be inconsistent with the GLI guidance. For this reason, and because the water quality characteristics of and resulting classification system for Lake Superior and its tributaries contradict the suggested language, MPCA staff do not propose to include this language in the rule.

The Administrative Law Judge cannot say that the Agency's rule is unreasonable without the language proposed by industry. However, he believes that the Agency's basis for objecting to the proposed language elevates bureaucratic form over environmental substance. While the Administrative Law Judge does not claim to understand all of the workings of the classification system of part 7050, he does believe that classifications are assigned to waters with a broad brush. The test proposed by the industry is far more site-specific. The Administrative Law Judge believes that before the Agency would accept such an assertion of similarity of waters, it would require testing data to show that, in fact, the characteristics were similar and that the procedure would not result in additional concentrations of the GLI pollutant in the receiving water. The Agency would have the data to make a far more accurate evaluation of the proposal than it gets from its broad-brush classification system. Because of this, the Administrative Law Judge recommends (but does not require) that the Agency add the language proposed.

77. Another provision of part 7052.0220 requires a WQBEL for each facility that discharges detectable levels of a GLI pollutant if the geometric mean of that

pollutant in fish tissue samples collected from the water body exceeds the fish tissue basis of the water quality standard or criterion, taking into account the variability of the pollutant's bioaccumulation in fish. Minnesota Power, Potlach, Northshore Mining and others all object to this provision, and proposed a variety of changes all designed to limit the need for WQBELs. Without going into detail on the various suggestions, the Administrative Law Judge finds that they are all significant lessenings of the GLI guidance's concept in this regard, such that they will not be "as protective as" the guidance. As will be noted below, EPA appears to be examining each state's proposed rules in detail, and objecting to changes which, in the opinion of the Administrative Law Judge, are far less substantial than those proposed to this section. EPA's stance with regard to this section is likely to be strengthened by the Court of Appeals' decision in the AISI litigation cited earlier. In that litigation, industrial petitioners made the same argument as they have made here, and the court (using an "arbitrary and capricious" standard) rejected their concerns, accepting the EPA's use of this method to determine whether or not a discharger had a "reasonable potential" to be the cause of an exceedance. 115 F.3d 979, 1000-01. The Administrative Law Judge concludes that the Agency has demonstrated the need for and reasonableness of its proposal for subpart 7 without any further changes.

78. Subpart 8 of proposed rule 7052.0230 would have exempted dischargers consisting solely of non-contact cooling water that is used once-through from the requirement of having a WQBEL in the discharger's permit. There were, however, certain conditions which had to be met in order to qualify for the exemption. The Agency has proposed this subpart, even though it is not in the GLI guidance. The Agency explained in the SONAR that the purpose of it was to decrease the workload for the discharger and the staff in situations where aquatic life, human health, and wildlife were assured of being protected. In other words, why put a discharger through the "reasonable potential" requirement when the outcome is known in advance.

79. Minnesota Power urged that the exemption be broadened beyond that proposed by the Agency. But more importantly, EPA indicated its disapproval of the entire exemption. It found the exemption to be too broad and inconsistent with a number of provisions in the GLI guidance. Moreover, EPA informed the staff that MPCA's goal could be accomplished using subpart 5, item A. EPA indicated that it "must disapprove" of provisions that are not as protective as the guidance. In response to this, and the staff's agreement that the original intent of the subpart would be fulfilled by other provisions in the rule, the staff proposed to withdraw the exemption entirely.

80. The Administrative Law Judge concludes that the Agency is entitled to withdraw the proposed subpart in its entirety. Minn. Stat. § 14.05, subd. 3 authorizes an agency to withdraw a proposed rule at any time prior to filing it with the Secretary of State, so long as it gives notice of the withdrawal in the State Register. However, a question arises with regard to whether or not the withdrawal causes the remaining rule to be a substantially different rule from the rule as published. A consideration of the factors in Minn. Stat. § 14.05, subd. 2 suggests that it does not. Persons who would be concerned about the existence of this exemption, persons using non-contact cooling

water on a once-through basis pursuant to a discharge permit, are likely to be sophisticated entities who are aware of the status of EPA's stance on this matter. The Agency's final responses indicate that EPA has expressed concern regarding this provision in other states' rules, as well as Minnesota's. EPA's position, and the Agency's response, should thus not be a great shock to these permittees. Finally, it would be senseless to force the Agency to go through the motions of the "substantially different" procedure when the outcome is preordained. EPA's position will ultimately prevail, and the Agency's withdrawal recognizes that reality.

Additive Impacts

81. Proposed rule 7052.0230 deals with additivity, and contains provisions to protect both human health and aquatic life (but not wildlife) from the additive effects of chemical mixtures in effluents. The GLI guidance requires provisions to protect human health against chemical mixtures of carcinogens and non-carcinogens. It does not, however, require consideration of the additive effects of GLI pollutants for aquatic life toxicity. Nevertheless, the Agency has added a provision because such a provision currently exists in chapter 7050 and is currently applicable to the Lake Superior Basin under that rule. The adoption of the GLI guidance, without inclusion of this provision, would result in decreased protection in the Lake Superior Basin, which is contrary to the intent of the GLI. In fact, the method which must be used for compliance with this subpart is the same as the method in the existing rule at part 7050.0222, subp. 7, item B.

82. Lake Superior Paper urged that the whole subpart be deleted, because it exceeds the requirements of the GLI guidance. The Agency opposed the deletion, arguing that since it already applied to the Lake Superior Basin, deleting it would be a step backward without any sound reason.

83. The Administrative Law Judge agrees with the Agency. While Lake Superior Paper is correct in its observation that this provision is not in the GLI guidance, it may not have understood that it was in the existing rules because the Agency had made an error in its drafting for these rules. The Agency had directed persons to use the methodology in existing rule part 7050.0222, subp. 7, item D. Lake Superior Paper correctly noted that this referred to carcinogens, while the proposed rule referred to acute toxics. In its final responses, the Agency noted the error and proposed to change the reference from subpart 7, item D to subpart 7, item B. The Administrative Law Judge finds that this was a harmless clerical error, and does not cause the rule to be substantially different from that as proposed. He also concludes that the Agency is justified in continuing the protection for the Lake Superior Basin as it is currently in effect statewide.

Whole Effluent Toxicity

84. Proposed rule 7052.0240 deals with whole effluent toxicity (WET). This is a procedure for developing a permit condition based upon the behavior of live aquatic

organisms exposed to a discharger's effluent. It is similar (but not verbatim) to the GLI guidance, and the Agency believes the EPA will accept it as being "as protective as" the GLI guidance. The proposed rule drew criticism by a number of industrial commentators, including the Iron Mining Association of Minnesota, US Steel, Minnesota Power and Potlatch. The general thrust of their criticism is that the EPA erred when it adopted the procedure which it did to determine whether or not an effluent has the "reasonable potential" to cause or contribute to an excursion above certain identified limits. They believe the EPA statistical method over-estimates toxicity and results in WET limits in many situations where a limit is not warranted. They argue that other Great Lakes states have recognized this flaw, and refused to adopt the GLI guidance procedure. The Agency responded that in at least two cases, EPA has given preliminary indications that such alternative procedures are not as protective as the GLI guidance.

85. As the technical complexity of such scientific issues increases, the restraint of a reviewing person (such as the ALJ in this case) must also increase, for there is a risk that he will make an error because of a lack of understanding of the matters at hand. In the Manufactured Housing case, cited earlier, Justice Simonette referred with approval to a line of federal cases which holds that in areas of scientific uncertainty and technical complexity, judges should not attempt to assume more technical expertise than they have, but instead they should focus on an area where they (presumably) do have some abilities -- the area of reviewing the *process* by which the agency reached its decision to propose a rule. In this case, the Administrative Law Judge believes that the Agency has justified its adoption of the GLI procedure as reasonable, in part because there are enough safeguards in the rule to protect against arbitrary permit requirements. The rule has provisions for how to deal with insufficient information and to assure that it relies on representative data. It appears that the Agency has considered the objections and responded to them in a manner which suggests that their proposal is not arbitrary or capricious, but rather does have a rational basis. The Agency may, therefore, proceed to adopt it.

WQBELs Below Quantification Level

86. Support for the preceding conclusion is given by the Agency's response to criticisms of the next rule. That rule, proposed part 7052.0250, deals with the problems of limitations in our ability to detect minimal levels of pollutants. It indicates how to address WQBELs that are below the quantification level. This issue is particularly important in the case of persistent bioaccumulative toxics because when a number of dischargers contribute them to a water body, even in small amounts, the pollutants persist and are bioaccumulated to the point where they cause health concerns for humans and other species. But industry, understandably, is concerned with its ability to deal with problems it cannot even measure. The rule at issue represents EPA's attempt to deal with the problem and demonstrates EPA's willingness to admit mistakes when they are pointed out.

87. The first section of the proposed rule to draw criticism was subpart 2 B. This subpart applied a procedure recommended by EPA in 1994. However, in response to industry criticism, EPA has backed away from its earlier proposal and is in the process of preparing a substitute. See Letter dated June 9, 1997 to Mr. Jerry Schwartz from Robert Perciasepe, which letter is attached to the Initial Comments of Potlach Corporation. In response, MPCA has proposed to withdraw this procedure from its proposal and review quantification levels on a case-by-case basis until such time as EPA promulgates new methodologies.

88. On a related note, Lake Superior Paper, Iron Mining Association, Minnesota Chamber of Commerce, Minnesota Power and Northshore Mining all seek an addition to the proposed rule which would require the Agency to consider the achievability of a quantification level by competent commercial laboratories. While various commentators had different wordings to achieve this goal, they all had basically the same idea in mind -- that the Agency must consider what levels of quantification can be achieved by competent laboratories when establishing levels. The Agency responded that the Department of Health operates a certification program for analytical laboratories, and the MPCA relies on that program to ensure appropriate quality assurance is achieved. That response does not really get to the point that was made by the commentators. The Administrative Law Judge believes that this issue is best left to the EPA. The Perciasepe letter referred to above indicated that the EPA intends to prepare a quantification protocol based upon laboratory derived data and an associated statistical procedure, and then submit that proposed protocol to an independent peer review by a group of experts external to EPA. They will be charged with assessing it against a number of criteria, including design of detection and quantification studies, and inter-laboratory variability. The industry concerns raised here are appropriately raised in that proceeding and, judging from the activities of the American Forest and Paper Association in this proceeding (which will be discussed more fully below), the Administrative Law Judge has every reason to believe that this issue will be presented to EPA for its consideration in the new protocol. The Agency's rule may be adopted without the addition proposed.

Pollutant Minimization Program

89. Proposed subpart 4 of rule 7052.0250 is the GLI pollutant minimization program, which the rule requires the Agency to include as a permit condition for each GLI pollutant with a WQBEL below the quantification level. The basic idea is that dischargers should be required to minimize their discharges of GLI pollutants regardless of how well the pollutants can be measured in their effluent. It is based upon the GLI guidance, with a relatively minor change, and recognizes that dischargers generally will know best where to go to look for individual pollutant sources and how to best develop cost-effective solutions to reduce them. Despite this flexibility, it drew a number of criticisms from industry.

90. The introductory paragraph to subpart 4 contains a goal statement. It reads as follows:

The goal of the GLI pollutant minimization program is to reduce all sources of the GLI pollutant to maintain the effluent at or below the WQBEL.

Minnesota Power urged that the statement be revised to read as follows:

The goal of the GLI pollutant minimization program is to maintain the effluent at or below the WQBEL.

This was supported by the Minnesota Chamber of Commerce and Potlatch and Northshore Mining. They base their concern on the fact that the goal calls for reducing "all sources" of the pollutant, which they believe is unrealistic in light of the fact that some GLI pollutants occur in raw materials (such as mercury, which occurs in wood and coal) and because they fear this language will be used as a means to regulate internal wastestreams, which the AISI court held was beyond the jurisdiction of EPA. The Agency opposed the proposed change, indicating that this sentence states a goal, not a limitation. As the Agency reads the court's decision, it does not prohibit EPA from all activities in connection with internal wastestreams (it does allow EPA to monitor internal wastestreams, for example), but it does prohibit EPA from placing WQBELs on internal wastestreams. The Agency reasons that this sentence does not require the pollutant minimization program to place any particular limitation, including a WQBEL, on an internal wastestream, and thus there is no problem with it.

91. The Administrative Law Judge believe that in the context of the subpart as a whole, the language is not unreasonable. The pollutant minimization program was designed to allow dischargers flexibility in deciding how they would minimize their pollutants. This sentence merely states the goal of the program. It may well be that the discharger chooses to take some minimization steps on an internal stream, rather than at the end of the pipe. This sentence, and its language referring to "all sources", merely suggests that possibility. It does not require it. The sentence may be adopted as proposed.

92. Another part of the pollutant minimization program requires submittal of a control strategy to reduce GLI pollutant loading to an industrial or municipal wastewater treatment system influent. A number of people raised concern about this. Northshore Mining pointed out that not all industries have a distinct and segregated wastewater treatment system and it would be better to merely require "submittal of a control strategy to reduce GLI pollutant loading to the effluent". The Agency agreed with this concept, and proposed to add a phrase to the existing language to deal with this situation. Other commentators, however, saw the Agency's language as an attempt to regulate internal wastestreams, in the sense that it would require control strategy for influence to the industrial treatment system. Minnesota Power, for one, raised this issue, as did the Chamber of Commerce.

93. A close reading of the AISI decision supports the MPCA's contention. In that case, the industry plaintiffs argued that the Clean Water Act allowed the EPA to regulate only discharges into the navigable waters of the United States, and did not authorize the regulation of sources that discharged into a wastestream within a facility. The EPA responded that it had broad authority to assure compliance with discharges into the waters of the United States, and thus had the power to require at least monitoring and control of internal sources, so long as they furthered the goal of ensuring compliance when the effluent was ultimately discharged. The court split the baby -- it held that EPA could require monitoring of internal wastestreams in order to calculate otherwise unquantifiable point source effluent levels, and that it could set a discharge WQBEL at a level such that a plant would be forced to change its internal equipment and processes in order to comply, but it could not impose effluent limitations, such as WQBELs, upon internal wastestreams. See AISI, 115 F.3d 979, at 995-96. Therefore, the Administrative Law Judge concludes that the decision does not prevent the Agency from requiring a control strategy to reduce GLI pollutant loading to the treatment system influent.

Compliance Schedules

94. Proposed rule 7052.0260 deals with compliance schedules in permits involving the standards and limitations developed in chapter 7052. Subparts 2 and 3 relate to mandatory compliance schedules for new and existing dischargers, respectively. In each case, Minnesota Power proposed that additional language be added to require compliance schedules in more situations than the Agency had proposed. In fact, the Minnesota Power proposed language would have required compliance schedules in a variety of situations "including, but not limited to" certain listed ones. The Agency agreed with Minnesota Power's concept, but recognized that language such as "including, but not limited to" might constitute an impermissible grant of unbridled discretion. The Agency deleted that language, but otherwise added most of the situations Minnesota Power proposed. The Administrative Law Judge finds that the rule, as amended, has been justified as needed and reasonable.

Site-specific Standards or Criteria

95. Part 7052.0270 relates to site-specific water quality standards or criteria. It will be recalled that the Grand Portage Tribal Council and the Agency both referred to the use of this section in connection with applying more stringent fish consumption assumptions for certain subgroups of a population. Subpart 1 of the rule requires site-specific criteria or modifications to be preceded by a site-specific study of the effects of local environmental conditions on aquatic life, human health, or wildlife toxicity, and how these effects relate to the calculation of standards or criteria. It goes on to specify the methods for such a study and requires the Agency to use the study data to develop the site-specific criteria or standards. Lake Superior Paper agreed that such a study would be necessary most of the time, but suggested that there will be some situations where it would not always be the case. They pointed out that the GLI does not specifically state that such a study must be completed, and thus the MPCA should not require one in

every case. The Agency did not respond to this suggestion. However, in its SONAR, the Agency talked about the importance it attaches to these studies. The Administrative Law Judge cannot conjure up a situation where the Agency would not require one. The Administrative Law Judge finds that the Agency has justified its requirement of a study before developing a site-specific standard or criteria.

96. Lake Superior Paper also commented on subpart 6 of proposed rule 7052.0270, pointing out that it was one of a number of places where the GLI guidance used the word "may", but the Agency had changed that word to "must". For example, in this case, the subpart sets forth when the Agency must modify BAFs following a site-specific study. It sets forth conditions for both raising and lowering BAFs. The use of the word "must" rather than "may" is a recognition of Minnesota's greater emphasis on restricting discretion than occurs under the federal rulemaking scheme. All agencies proposing rules must be vigilant against rules which give the agency too much discretion. Beck, Bakken & Muck, op. cit. at § 24.4. The rule may be adopted as proposed.

Variances

97. Proposed rule 7052.0280 deals with variances from water quality standards or criteria. It contains a number of limitations and procedures which must be followed before the agency can grant a variance.

98. The National Wildlife Foundation urged that subpart 3, which contains conditions to grant a variance, be expanded by adding a provision which requires the applicant to show that pollution prevention is infeasible. They reasoned that requiring the demonstration of infeasibility would ensure that the variance is, in fact, necessary. They pointed out that such a demonstration is required under the GLI's anti-degradation rules before a permittee can be given approval to increase a discharge into certain waters, and suggested that Wisconsin, Michigan and Ohio have required similar pollution prevention demonstrations for variances for BCCs. The Agency responded by pointing out that the variance requirements of Minn. Rule pt. 7000.7000, subp. 2 do apply to variance requests and allow the Agency to require "a comprehensive proposed plan indicating the steps to be taken by the applicant . . . to reduce emission levels or discharges to the lowest limits practical . . .", as well as ". . . a statement of the alternatives to the proposed operation under the variance which have been considered by the applicant" The Agency also noted that part 7052.0280, subp. 5, item E requires a pollutant minimization program once a variance is granted. The Agency staff argued that these provisions would meet the intent of NWF's request. The Administrative Law Judge cannot say that the rule is unreasonable without the foundation's proposed addition. The ALJ can only require changes if he finds the Agency's proposed rule to be unreasonable. Particularly in light of the provision in subpart 5.E. requiring a GLI pollutant minimization program in the case of variances granted for BCCs, the Administrative Law Judge cannot make such a finding. The rule may be adopted as proposed, without the addition.

99. Lake Superior Paper and Minnesota Power both proposed two additional paragraphs for addition to the variance section. One dealt with multiple discharger variances for ubiquitous pollutants, and the other dealt with mercury. Each will be discussed separately below.

100. In support of its argument that the Agency should be allowed to grant multiple discharger variances for ubiquitous pollutants, Minnesota Power argued that in situations where a pollutant of concern is ubiquitous and poses compliance issues throughout a watershed, allowing a multiple discharger variance would minimize the cost associated with individual demonstrations and promote the concept of dischargers working together to improve water quality within the basin. They proposed specific language to accomplish this goal. In response, the Agency indicated that many of the data-intensive costs for certain variances can be pooled among individual applicants. This is discussed more fully in the SONAR at pages 136-37. There, the Agency stated a rational basis for its position. Essentially, the Agency wants facility-specific information, a review of the steps taken to reduce the discharge, and alternatives that have been considered, along with a variety of other information that is specific to each facility. This is not arbitrary or capricious, particularly in light of earlier discussions regarding pollution minimization. The rule may be adopted without the addition recommended for multiple discharger variances.

101. The same two commentators also suggested that there be special provisions to address mercury, as has been done in Ohio. They would like to be relieved from compliance with the WQBEL for mercury so long as they implement a strong pollutant minimization program for mercury. They argue that this is appropriate because an Ohio study demonstrated that compliance with mercury WQBELs will involve "enormous" costs to the permittees for a minimal environmental benefit. That study, which was attached to Minnesota Power's comments as Attachment 5, caused Ohio to add a special provision to its rule which begins as follow:

On the adoption date of this rule, the director has determined that the average cost to reduce mercury below 12 ng/l from a wastestream through end-of-pipe treatment is in excess of \$10 million per pound mercury removed. On the adoption date of this rule, the director has determined that requiring removal of mercury by construction of end-of-pipe controls to attain mercury water quality standard . . . would result in substantial and widespread social and economic impact.

In its final comments, the Agency indicated that it saw several difficulties with incorporating such a provision into the rules. It pointed out that the Ohio provision was the focal point of long-term discussions within that state, including a comprehensive economic study. Those discussions, and studies, have not been completed in Minnesota. It believes such studies are necessary on a number of issues raised by the Ohio provision, including both the 12 ng/l threshold selected there and the cost of

compliance. It concludes that the Ohio approach would be premature at this time, and an additional study is necessary before it could undertake to make such a proposal.

102. The Administrative Law Judge accepts this rationale. Mercury has a variety of unique characteristics, some good, most bad. The Agency has spent a great deal of time and money studying its release, transportation, fate and control. It is thus well positioned to evaluate variance requests for it. Given the substantial public concern that does exist over mercury in the state's waters, the Administrative Law Judge accepts the Agency's concern and unwillingness to adopt such a provision in this manner.

Nondegradation Implementation

103. Proposed part 7052.0310 sets forth the procedures for implementation of the nondegradation portion of the GLI guidance. Subpart 4 sets forth a list of the actions which will "trigger" the requirement for a nondegradation demonstration. Item B of that subpart would require a nondegradation demonstration in the event of a modification of an existing facility operating under a current control document such that the production capacity of the facility is increased. This drew some comments. Western Lake Superior Sanitary District (the single largest point source discharger into the lake on the American side) urged that a demonstration be required "only when increased or expanded discharges cause or have the potential to cause loading in excess of present permit conditions". Minnesota Power urged that item B be deleted because it appeared to be redundant or, depending on how it is read, it was undesirable. Northshore Mining expanded on that thought, suggesting that in talks with the Agency, Northshore had understood that item B was intended solely to situations where a production bottleneck was removed and production significantly increased. The Agency responded that the item was taken from EPA's guidance, and was intended to cover a situation where a change in equipment, for example, resulted in both increased production of product and increased discharge of a BCC. Although no permit modification or reissuance would be required under that situation (the permit allows for the replacement of old equipment with similar new equipment), yet, the potential for a BCC increase was there. In such a situation, the Agency desires to have a nondegradation demonstration. The concern of at least Northshore and Minnesota Power is that this provision would also be used to require a demonstration in the event that a facility which is not currently operating at maximum capacity (for example, due to current marketing conditions) but whose maximum capacity is allowed under the current control documents, would not have to do an anti-degradation demonstration if it increased its production rates within the limits published in its permits. The Agency implies that this is not the intent of this provision. Final Responses, p. 6. The Administrative Law Judge finds the Agency has demonstrated the reasonableness of its position, and no change is required. However, it would be desirable if the Agency clarified the provision to avoid future disagreements over intent.

104. With regard to Western Lake Superior's comment, the Agency disagrees that the review process should be triggered only when increased or expanded

discharges cause or have the potential to cause loading in excess of present permit conditions. The Agency believes this would be clearly less protective than the requirements of the GLI guidance, which requires a demonstration, even in situations where the permit is still being met.

105. Minnesota Power also expressed concern about increased loads from random variability in raw materials, such as the variability in mercury content of coal or the mercury content of trees used in a pulp and paper facility. The Agency has stated it will not require monitoring of the BCC content of raw materials such as trees in order to provide data that may trigger a demonstration. The Agency believes that this would be covered by the exception in subpart 5A.1., which deals with normal operational variability. However, the Agency believes that if a discharger plans to switch to a totally new source of raw material, or a new supplier, and if monitoring information suggests that the switch will result in an increased loading of a BCC, then the discharger should have to complete a nondegradation demonstration. This is a reasonable position for the Agency to take, in that it forces the industry to consider the cost of a nondegradation demonstration when weighing the decision to change suppliers or to make some other substantial change that goes beyond normal operational variability.

106. Subpart 5 of the same rule sets forth a list of actions and activities that do not require a nondegradation demonstration. It drew a number of comments from persons who sought expansions of various provisions. Minnesota Power, for example, sought to amend subpart 5A(5). That provision provides that no demonstration is needed in the event of changes in loading of a BCC within the existing capacity and processes covered by an applicable control document, including new effluent limitations based on improved monitoring data or new water quality standards or criteria that are not a result of changes in pollutant loading. Minnesota Power would add to this additional factors -- changes due to analytical methods, lower quantification levels, or new or modified technology-based requirements. The Agency believes that the first of these is covered by the phrase "improved monitoring data". The second situation, relating to new or modified technology-based requirements, was unclear to the Agency (and to the Administrative Law Judge). The Agency felt Minnesota Power's proposed language was ambiguous and appeared overbroad, and the Administrative Law Judge must agree. The item may be adopted as proposed by the Agency.

107. Item C of the same subpart provides a nondegradation demonstration is not needed in the event of new or expanded discharges of non-contact cooling water that will not result in an increased loading of a BCC. Potlach argued that this is really a non-exemption because it talks about new or expanded discharges that will not result in an increased loading of a BCC. Potlach believes that the intent was to refer to no increases of a BSIC beyond the original background levels found at intake. The Agency considered this comment and indicated that its intent was, in fact, to refer to BCCs, as that is more inclusive than BSICs.

108. Item D of the subpart provides that no nondegradation demonstration is needed in the case of increased sewage loading to an existing, publicly owned

wastewater treatment works, so long as the increase is within the permitted design flow, there is no increased loading of BCCs, and no significant change is expected in the characteristics of the wastewater discharge. Minnesota Power, and the Iron Mining Association both sought changes to this rule. They would only allow it to apply if increased loading of BCCs was due to a "significant" industrial user and, the wastewater is expected to have quantifiable concentrations of the BCC "significantly above" levels typically associated with domestic wastewater and non-industrial storm water. The Agency objected to this proposed modification for a number of reasons. They argued it would create a substantial loophole whereby new and expanded BCC discharges could occur without the regulatory oversight intended by the GLI. The Agency is concerned that phrases such as "significantly above" and "typically associated" are imprecise, and therefore difficult to enforce. Also, they are concerned that relatively high concentrations of some BCCs can occur in non-industrial storm water during large storm events, and these should not be the standard by which industrial loadings of BCC are measured.

109. One of the more interesting comments to this rule came from lawyers for the Simon DeBartolo group, which owns and operates the Miller Hill Mall in Duluth. The rule as presently written would exempt from the nondegradation demonstration new or expanded discharges of construction or industrial storm water subject to a *general* NPDES permit. Miller Hill Mall is not subject to a general permit. Instead, it has its own *individual* permit. It points out that an individual permittee such as itself will already require the implementation of best management practices control devices and activity, and thus there is no point in requiring them to go further than smaller malls, who would qualify for this exemption as presently written. In response, the Agency pointed out that one of the reasons that Miller Hill Mall was issued an individual permit, rather than a general one, was because it ultimately discharges into Miller Creek, which is a tributary of the St. Louis River. The creek supports a naturally-reproducing population of brook trout and has been the subject of substantial restoration and protection efforts. Currently, when determining whether or not to issue an individual permit or a general permit, the Agency considers a variety of factors, such as the likelihood of violation of water quality standards, as well as a consideration of the receiving water. For these reasons, the Agency believes that it is appropriate to require individual permittees to provide a nondegradation demonstration for new or expanded discharges of BSICs or BCCs. The Agency pointed out that this exemption only applies to new or expanded discharges, not existing discharges. The Agency believes that if a facility such as Miller Hill Mall is expanded, there are a variety of steps which can be taken to minimize storm water generation, including pollution prevention options. Therefore, the Agency believes it is reasonable to differentiate between individual permittees and general permittees with regard to the availability of the exemption. The Administrative Law Judge concludes that the Agency has demonstrated its proposal to be reasonable without the change proposed for Miller Hill Mall.

110. Minnesota Power and Western Lake Superior Sanitary District both suggested adding provisions to this subpart 5 which would essentially allow for the avoidance of a nondegradation exemption for a new or expanded discharge when the

discharger had taken agency-approved steps to control wet weather flows, such as combined sewer overflows or storm water discharges, or where the discharger had gained removal credits for infiltration and inflow control. Both of these ideas allow for types of pollutant trading programs. The Agency believes that there are some situations where such a tradeoff might be appropriate, but it is unwilling to write a rule at this point because it believes there are a variety of unexamined factors and limitations which would have to be written into such a rule. EPA has not yet opined on the validity of such an arrangement, and MPCA would like to consult with EPA before adding such a provision. The Administrative Law Judge believes this to be a rational course, and thus would allow the rule to be adopted without the changes proposed.

111. The Administrative Law Judge concludes that the Agency has justified the need for and reasonableness of its recommendations for nondegradation implementation in part 7052.0310, and none of the suggestions need to be added in order to make the rule reasonable.

Best Technology in Process and Treatment

112. Part 7052.0320, dealing with nondegradation demonstrations, requires an analysis of best technology in process and treatment (BTPT) under many situations. The BTPT proposed must be the most advanced technology available, viable in the marketplace, and compatible with existing processes where facility modifications or process technology changes are proposed. In its SONAR, the Agency included a lengthy appendix (Appendix B, 46 pages long) discussing BTPT. This appendix provides, in an introductory comment:

It is important to stress that the above information was compiled to serve as an example of a pollutant source matrix and BTPT technologies, not as a comprehensive list or rigid guideline. Since BTPT is meant to be the most advanced technology available that is economically viable, it is impossible to develop a guidance document that lists all the BTPT options for each type of industry and wastewater treatment facility. Given the fast pace of technological improvements and the development of pollution prevention and treatment technologies, such a document would be out-of-date almost before it was printed. Therefore, the determination of BTPT for a facility must be based on a site-specific BTPT analysis, and must be reviewed by the MPCA on a case-by-case basis if the goal of being "best technology" is to be met.

Despite this caution, at least one commentator was very concerned about statements made in the BTPT appendix to the SONAR, and brought in an expert in an attempt to correct what it believed to be misstatements there. During the hearing, after it became clear that the commentator's concern was solely with regard to the SONAR, and not with regard to the rule itself, the Administrative Law Judge interrupted the presentation and suggested that the Judge's attention would be focused on the rule, and not the

SONAR, particularly not the SONAR at the level of detail which would have been required to analyze and evaluate the comment. Tr. September 24, at pp. 52-57. Nonetheless, the Administrative Law Judge would note for the record that the American Forest and Paper Association takes issue with the suggestion that oxygen delignification technology is BTPT for the bleached kraft pulp and paper mill industry. In its Final Comments, the Agency indicated that it did not intend the SONAR appendix to be an exclusive catalogue of available, "approved" BTPT technologies. Rather, the Agency stated, the appendix was developed to provide examples of possible BTPT technologies to help explain the basis and rationale for the proposed rule. The Agency stated that it expects BTPT to be site-specific, and will evaluate it on a case-by-case basis. Given that understanding, the Administrative Law Judge will not discuss further the comments directed to Appendix B of the SONAR. It is not a rule, and cannot be enforced as a rule, and was never intended to be part of the rule.

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

CONCLUSIONS

1. That the Minnesota Pollution Control Agency gave proper notice of the hearing in this matter.

2. That the Agency has fulfilled the procedural requirements of Minn. Stat. §§ 14.14, subds. 1, 1a, 1b and 14.14, subds. 2 and 2a, and all other procedural requirements of law or rule.

3. That the Agency 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), except as noted at Finding No. 57.

4. That the Agency has documented the need for and reasonableness of its proposed rules with an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50 (iii).

5. That the amendments and additions to the proposed rules which were suggested by the DNR 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. §§ 14.05, subd. 2 and 14.15, subd. 3.

6. That the Administrative Law Judge has suggested action to correct the defects cited in Conclusion 3 as noted at Finding 57.

7. That due to Conclusion 3, this Report has been submitted to the Chief Administrative Law Judge for his approval pursuant to Minn. Stat. § 14.15, subd. 3 or 4.

8. That any Findings which might properly be termed Conclusions and any Conclusions which might properly be termed Findings are hereby adopted as such.

9. That a finding or conclusion of need and reasonableness in regard to any particular rule subsection does not preclude and should not discourage the Minnesota Pollution Control Agency from further modification of the proposed rules based upon an examination of the public comments, 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 except where specifically otherwise noted above.

Dated this 25th day of November 1997.

Allan W. Klein
Administrative Law Judge

Reported: Reporters Diversified Services, Duluth, and
Kirby A. Kennedy & Associates, Minneapolis.