



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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JUN 15 2001

Ref: 8EPR-EP

Francis J. Schwindt, Chief
Environmental Health Section
North Dakota Department of Health
1200 Missouri Avenue
Bismarck, ND 58504-5264

Subject: EPA Action on Revisions to
the *Standards of Quality for Waters
of the State*

Dear Mr. Schwindt:

The U.S. Environmental Protection Agency (EPA) has completed its review of the revisions to *Standards of Quality for Waters of the State* adopted by the North Dakota State Health Council on March 20, 2001. These revisions were approved by the North Dakota Attorney General on March 28, 2001. Receipt of the revised standards on April 23, 2001 initiated EPA's review pursuant to Section 303(c) of the Clean Water Act (CWA or the Act). EPA has completed its review, and this letter is to notify you of our action.

The Region commends the Health Council and the Department of Health for adopting significant improvements to the State's water quality standards. Especially commendable revisions include:

- a revised mixing zone policy and a new mixing zone implementation procedure,
- a new antidegradation implementation procedure,
- new and revised numeric water quality criteria for the protection of aquatic life and human health,
- a new narrative biological goal describing the target biological condition of state surface waters, and
- a new narrative standard addressing minimum stream flows necessary to protect the public health and welfare.



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Looking ahead, the Region continues to advocate revisions to North Dakota's water quality standards to incorporate EPA's 1986 criteria guidance for bacteria. As discussed in the *Action Plan for Beaches and Recreational Waters*, March 1999, EPA is working to ensure that, by 2003, all States and Tribes adopt *Ambient Water Quality Criteria for Bacteria - 1986* and make the transition to the recommended *E. coli* and enterococci indicators, rather than total coliforms or fecal coliforms. Later this year, EPA will issue additional guidance regarding implementation of the 1986 criteria recommendations to assist States and Tribes with the transition. We view this topic as an important priority for North Dakota's next triennial review.

AGENCY REVIEW

Clean Water Act (CWA) § 303(c)(2) requires States and authorized Indian Tribes to submit new or revised water quality standards to EPA for review. EPA is to review and approve or disapprove the submitted standards. Pursuant to CWA § 303(c)(3), if EPA determines that any standard is not consistent with the applicable requirements of the Act, the Agency shall not later than the ninetieth day after the date of submission of such standard notify the State or authorized Tribe and specify the changes to meet such requirements. If such changes are not adopted by the State or authorized Tribe within ninety days after the date of notification, EPA shall promulgate such standard pursuant to CWA § 303(c)(4). The Region's goal has been, and will continue to be, to work closely with States and authorized Tribes throughout the State or Tribal standards revision process as a means to avoid the need for such disapproval and promulgation actions.

TODAY'S ACTION

I am pleased to inform you that today, with certain exceptions, the Region is approving all revisions to *Standards of Quality for Waters of the State*. The exceptions are that the Region is not acting today on the revised standards for the protection of ground water, the standards for waters in Indian Country, the standards for radionuclides, or the technology-based requirements applicable to the discharge of wastes. The basis for our action is discussed in Enclosure 1.

It is important to note that EPA's approval of the State's water quality standards is considered a federal action which may be subject to the Section 7 consultation requirements of the Endangered Species Act (ESA).¹ Section 7 of the ESA states that "all other federal agencies shall ... utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species..." and "each federal agency ... shall ... insure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical..."

¹ Where EPA concludes that its approval action will have "no effect" on listed endangered or threatened species, no ESA Section 7 consultation is required and EPA can issue an unconditional approval. In today's action, EPA is making a "no effect" finding for specific water quality standards revisions, and those elements are approved without condition.

On June 4, 2001, EPA initiated informal consultation with the U.S. Fish and Wildlife Service concerning EPA's review of the State's water quality standards. Our evaluation will include identification of any potential effects to listed or proposed endangered or threatened species which might result from the new or revised water quality standards. EPA's approval of the water quality standards revisions, therefore, is subject to the results of consultation under Section 7(a)(2) of the ESA, and completion of the consultation process is a high priority for the Region. Nevertheless, EPA also has a Clean Water Act obligation, as a separate matter, to complete its water quality standards approval action. Therefore, in approving the water quality standards revisions today, EPA is completing its CWA Section 303(c) responsibilities.

Today's action includes a finding that EPA's approval of certain elements of the revised water quality standards will have no effect on listed or proposed endangered or threatened species. For these revisions, no consultation with the U.S. Fish and Wildlife Service is required. As explained above, however, EPA does have ESA responsibilities for the remaining revisions. As a result, the discussion below covers two categories of revisions that EPA is acting on today: (1) revisions approved without condition, and (2) those that are approved, subject to ESA consultation. In an enclosure, we explain the basis for today's action.

APPROVED REVISIONS

EPA has concluded that approval of the new or revised water quality criteria for the protection of human health will have no effect on listed or proposed endangered or threatened species. For these adopted revisions, no consultation with the U.S. Fish and Wildlife Service is required. In addition, EPA has concluded that these revisions are consistent with the requirements of the Clean Water Act and EPA's implementing regulations. Accordingly, these revisions are approved, without condition.

APPROVED REVISIONS, SUBJECT TO ESA CONSULTATION


With the exception of the revisions approved without condition, above, and the revisions where EPA is taking no action today, the remaining new or revised water quality standards are approved for purposes of CWA Section 303(c), subject to the results of consultation under Section 7(a)(2) of the ESA. Included in this category are the new or revised elements of: (1) the general water quality standards, (2) the mixing zone policy and implementation procedure, (3) the antidegradation implementation procedure, (4) the numeric criteria for the protection of aquatic life, and (5) certain other miscellaneous adopted revisions. Should the consultation process with the U.S. Fish and Wildlife Service identify information that supports a conclusion that one or more of the revisions in this category are likely to jeopardize the continued existence of any listed endangered or threatened species, or result in the destruction or adverse modification of designated critical habitat of such species, the Region will revisit and revise, as necessary, its approval decision for the identified water quality standards.

CONCLUSION

EPA Region 8 congratulates the Department of Health for the significant improvements to the State's water quality standards that were adopted as a result of the recently-completed rulemaking action. The Region looks forward to working with the Department to make additional improvements to the State's water quality standards.

If you have questions concerning this letter, please call me or Max Dodson, Assistant Regional Administrator, Office of Ecosystems Protection and Remediation at 303-312-6598, or have your staff contact David Moon at 303-312-6833 or Bill Wuerthele, Regional Water Quality Standards Coordinator, at 303-312-6943.

Sincerely,


for Jack W. McGraw
Acting Regional Administrator

Enclosure

**RATIONALE FOR EPA'S ACTION
ON THE REVISIONS TO NORTH DAKOTA'S
WATER QUALITY STANDARDS**

This enclosure provides the rationale for today's EPA action. The discussion below is organized as follows: (1) standards for which EPA is taking no action today, (2) standards approved without condition, and (3) standards that are approved, subject to ESA consultation.

STANDARDS FOR WHICH EPA IS TAKING NO ACTION

The Region is not acting today on the revised standards for the protection of ground water, the standards for waters in Indian Country, the standards for radionuclides, or the technology-based requirements applicable to the discharge of wastes. Below, we have provided a brief discussion of each of the four categories of revisions.

Ground Water Quality Standards

Section 33-16-02-10 establishes classifications and standards for ground water. Section 303(c) of the Clean Water Act applies to surface waters, and therefore, EPA currently has no authority to either approve or disapprove ground water standards. The exclusion of the ground water standards from our review is due simply to our lack of authority to act. Our inability to officially approve North Dakota's ground water standards should not be interpreted as either dissatisfaction with the adopted ground water standards or a suggestion that North Dakota lacks authority to establish ground water standards. Clearly, North Dakota has that authority, and we commend North Dakota for using its authority to protect its valuable ground water resource.

Surface Waters in Indian Country

The water quality standards approvals in today's letter apply only to water bodies in the State of North Dakota, and do not apply to waters that are within Indian Country, as defined in 18 U.S.C. Section 1151. Today's letter is not intended as an action to approve or disapprove water quality standards applying to waters within Indian Country. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities for water quality standards for waters within Indian Country.

Standards for Radionuclides

Today EPA is not acting on the new or revised numeric standards for radionuclides, including the new water quality criterion for beta/photon emitters. This new beta/photon emitters criterion is based on the Safe Drinking Water Act (SDWA) Maximum Contaminant Limit (MCL), and was adopted to provide protection to water supply uses in Class I, Class IA, and Class II waters.

Our review has indicated that beta/photon emitters are (or could be) source, byproduct or special nuclear materials as defined by the Atomic Energy Act (AEA materials). Currently, the Agency has not determined whether it is appropriate to act on standards for AEA materials. It is clear that there are a number of legal factors complicating regulation of discharges containing radionuclides under the CWA, including the Supreme Court's finding in Train v. Colorado Public Interest Research Group (1976). We also acknowledge that a number of States, including North Dakota, have agreements with the Nuclear Regulatory Commission (NRC) which discontinue NRC's regulatory authority over AEA materials in some situations. Please be assured that EPA will carefully consider all pertinent information prior to making a determination. Until the Agency makes a determination, the Region will act on new or revised standards for radionuclides only if it can be determined that they are not AEA materials. Based on input from the Region's Radiation Protection Program, it appears that beta/photon emitters are (or could be) AEA materials, and so the Region is not taking action on these standards today. Regional action on water quality standards for AEA materials will occur if and when the Agency determines it is appropriate to act on such standards.

Discharge of Wastes

Section 33-16-02-11 includes technology-based requirements applicable to the discharge of wastes. For example, this section includes a requirement that no untreated domestic sewage shall be discharged into the waters of the State. Although contained within the water quality standards document, EPA does not consider such technology-based requirements to be water quality standards that trigger an EPA duty to approve or disapprove under CWA § 303(c). Therefore, the Region is taking no action today with respect to the adopted revisions to Section 33-16-02-11.

STANDARDS APPROVED, WITHOUT CONDITION

EPA has concluded that approval of certain revisions will have no effect on listed or proposed endangered or threatened species. For these revisions, no consultation with the U.S. Fish and Wildlife Service is required. In addition, as discussed in more detail below, EPA has concluded that these revisions are consistent with the requirements of the Clean Water Act and EPA's implementing regulations. EPA approves these revisions without condition.

Revised Water Quality Criteria for the Protection of Human Health

The revisions included extensive updates to Section 33-20-02-09(3), Numeric Standards, that include new or revised water quality criteria for the protection of human health. We believe the adopted revisions are appropriate and consistent with federal requirements and guidance. Especially commendable is the fact that numeric standards for the protection of human health were adopted for all substances where either CWA Section 304(a) criteria guidance or SDWA drinking water regulations have been published. This approach resulted in water quality criteria, for the protection of human health, for a very large universe of parameters.

The Region notes that the Agency recently published revised human health criteria for methylmercury. Because the recommended EPA criteria were published long after closure of North Dakota's public comment period, the Region will expect the State to review its water quality criteria for mercury as part of the next triennial review.

EPA approves, without condition, the new or revised water quality criteria for the protection of human health, consistent with federal requirements at 40 CFR 131.11. Our approval is based on a determination that the new or revised standards describe a level of water quality that is protective of designated uses.

STANDARDS APPROVED, SUBJECT TO ESA CONSULTATION

With the exception of the revisions approved without condition, discussed above, and the revisions where EPA is taking no action today, the remaining revisions are approved for purposes of CWA Section 303(c), subject to the results of consultation under Section 7(a)(2) of the ESA. The following discussion identifies the major revisions in this category and the basis for EPA's action.

General Water Quality Standards

North Dakota adopted various revisions to Section 33-16-02-08, General Water Quality Standards. These revisions include an important new provision at Section 33-16-02-08(1)(d), which authorizes the Department to propose, to the State Engineer, minimum flows for major rivers necessary to protect the public health and welfare considering the present and prospective use of the rivers for public water supplies, propagation of fish and aquatic life and wildlife, recreational purposes, and agricultural, industrial, and other legitimate uses. These revisions also include an important new narrative biological goal at Section 33-16-02-08(2), which will provide an additional means to identify surface waters where aquatic life uses are impaired. Each of the revisions to Section 33-16-02-08 is consistent with EPA guidance and the federal requirements at 40 CFR 131.11. Therefore, EPA approves these revisions, subject to ESA consultation.

Paragraph (2)(c) notes that the narrative biological goal is intended to provide an additional assessment tool that can be used to identify impaired surface waters. Paragraph (2)(c) also explains how the narrative biological goal will be implemented. For example, it is stated that "regulatory or enforcement actions based solely on a narrative biological goal, such as development and enforcement of NPDES permit limits, are not authorized. However, adequate and representative biological assessment information may be used in combination with other information to assist in determining whether designated uses are attained and to assist in determining whether new or revised chemical-specific permit limitations may be needed."

It is our understanding that paragraph (2)(c) was adopted, in part, in recognition of an inherent difference between biological criteria and the numeric chemical-specific criteria commonly adopted in State and Tribal water quality standards. That difference is the manner in

which the two criteria categories can be applied effectively in determining water quality-based effluent limits for point source discharges. Chemical-specific criteria typically are expressed as a concentration of a given parameter, with provisions that describe an averaging period and an allowable frequency of exceedence. Biological criteria describe a desired biological condition, and are expressed and interpreted using information about aquatic organisms.

Biological criteria, therefore, are not ideally suited for directly calculating allowable (concentration or loading-based) effluent limits for point source discharges. Although it might be possible to make such a calculation in certain situations, such a calculation likely would not be a straightforward task, e.g., because of the difficulties and uncertainties associated with isolating the specific cause (or causes) of an adverse change in the resident aquatic community.

Therefore, implementation of a narrative biological goal will not necessarily result in "narrative biological goal-based" numeric effluent limits for point source discharges into waters of the State. Instead, the narrative biological goal will be used to develop new or revised effluent limitations where the State can establish that a point source discharge (or combination of point source discharges) has a reasonable potential to contribute to an exceedence. Because of the wide range of stressors that may affect an aquatic community (e.g., both point and nonpoint sources of pollution, habitat alteration, flow requirements, etc.), new or revised effluent limits will be considered only where a linkage between an aquatic community impairment and one or more point source discharges can be established.

The Region understands that the narrative biological goal is to be used as required by Section 301(b)(1)(C) of the Clean Water Act and 40 CFR Section 122.44(d) in determining appropriate effluent limits for point source discharges of pollutants. Where the narrative biological goal is not satisfied, that information can be used by the permitting authority to re-evaluate any NPDES permit(s) for any relevant discharge(s) to determine if all appropriate chemical-specific and whole effluent toxicity effluent limits are included in the pertinent permit(s). For example, if the narrative biological goal were not met in any water segment, then the permit(s) for any discharge(s) that may be a contributing cause of the impairment would need to be evaluated and revised as appropriate. This may involve examining whether the relevant permit(s) contain limits for all substances present in the discharge.

By applying the narrative biological goal in this manner, the State will have an additional, powerful tool with which to ensure that NPDES permits do not authorize discharges that would cause, have the reasonable potential to cause, or contribute to any violation of or noncompliance with water quality standards. The Region understands that specific details regarding how the narrative biological goal will be implemented (e.g., selection of reference sites) have not yet been worked out, and looks forward to working with the State to address these issues. Interpreted as indicated above, paragraph (2)(c) is fully consistent with applicable federal regulations applicable to the control of point source discharges and, in particular, Section 301(b)(1)(C) of the Clean Water Act and 40 CFR Section 122.44(d).

Mixing Zone Policy and Implementation Procedure

New Appendix III contains a revised mixing zone and dilution policy and a new implementation procedure. Appendix III addresses how mixing and dilution of point source discharges with receiving waters will be addressed in developing chemical-specific and whole effluent toxicity discharge limitations. Included are provisions addressing each of the key elements of a complete mixing zones policy, as recommended in the Region 8 *Mixing Zones and Dilution Policy* (1995).

The Region has determined that new Appendix III contains sufficient provisions to guide development of appropriate chemical-specific and whole effluent toxicity permit requirements. If the policy is implemented as written, the Region believes that the resulting site-specific mixing zone and dilution decisions will be adequately protective of designated uses. Therefore, the Region has concluded that the new or revised mixing zone provisions are acceptable under 40 CFR 131.13 of the water quality standards regulation. Accordingly, the Region is approving Appendix III today, subject to ESA consultation. However, today's EPA approval action does not constrain nor forgo the Agency's ability to oversee future individual discharge permits and total maximum daily loads (TMDLs) to ensure that mixing zone or dilution decisions are consistent with the revised mixing zone and dilution policy.

Antidegradation Implementation Procedure

Appendix IV contains a new antidegradation implementation procedure. The new procedure delineates the process that will be followed by the Department in completing antidegradation reviews of regulated activities. The process requires public notice and opportunity to comment, as well as appropriate intergovernmental coordination on all reviews. Although the steps in the review vary depending upon what category of antidegradation protection is applicable, the procedure ensures that, at a minimum, existing uses will be maintained and protected in all waters of the State. The Region has determined that the new antidegradation procedure will ensure appropriate implementation of the State's antidegradation policy found at Section 33-16-02-02, and that the antidegradation provisions are consistent with federal requirements found at 40 CFR 131.12. Accordingly, the Region is approving Appendix IV today, subject to ESA consultation.

Numeric Criteria for the Protection of Aquatic Life

The revisions included extensive updates to Section 33-20-02-09(3), Numeric Standards, that provide new or revised water quality criteria for the protection of aquatic life. We believe the adopted revisions are appropriate and consistent with federal requirements and guidance. The revisions include adoption of revised statewide aquatic life criteria for ammonia, consistent with EPA's latest criteria guidance. The revisions also specify that aquatic life criteria for metals are expressed based on the total recoverable method. Previously, such aquatic life criteria for metals were expressed based on the acid soluble method.

The Region notes that the Agency recently published revised aquatic life criteria for cadmium. Because the recommended EPA criteria were published long after closure of North Dakota's public comment period, the Region will expect the State to review its water quality criteria for cadmium as part of the next triennial review.

EPA approves, subject to ESA consultation, the new or revised water quality criteria for the protection of aquatic life, consistent with federal requirements at 40 CFR 131.11. Our approval is based on a determination that the new or revised standards describe a level of water quality that is protective of designated uses.

Other Miscellaneous Adopted Revisions

The adopted revisions to the State's water quality standards include a variety of editorial and other changes that are not discussed specifically above. These miscellaneous revisions, most of which are minor wording changes, are spread throughout the water quality standards document. The Region believes these revisions serve to clarify or otherwise improve the water quality standards, and that they are consistent with federal requirements and guidance. Accordingly, the Region approves all such revisions today, subject to ESA consultation.