



Department of Energy
Washington, DC

January 4, 1999

W-98-01
WQS-ANPRM Comment Clerk
Water Docket
MC 4101
U.S. EPA
401 M Street, SW
Washington, DC 20460

Dear Sir/Madam:

The U.S. Department of Energy (DOE) appreciates the opportunity to comment on the advanced notice of proposed rulemaking for the water quality standards regulation, published in the July 7, 1998 Federal Register ([63 FR 36742](#)). The notice describes a variety of issues and poses questions to consider in comments. The Department's comments on some of those questions are enclosed.

If you need clarification of any of these comments, please contact Lois Thompson at 202-586-9581 or lois.thompson@hq.doe.gov.

Sincerely,

Raymond P. Berube
Deputy Assistant Secretary
for Environment

Enclosure

**U.S. Department of Energy (DOE) Comments on
Advanced Notice of Proposed Rulemaking for the Water Quality Standards Regulation**

DOE offers the following general and specific comments on the advanced notice of proposed rulemaking (ANPRM). Specific comments are identified by section and question number.

General Comments

1. Watershed Approach - The objective of the water quality standards regulation is the protection of waters of the United States. The U.S. Environmental Protection Agency's (EPA's) watershed approach to protect waters of the United States is the appropriate method for maximizing protection while minimizing the expenditure of resources. The proposed regulation should specifically address the watershed approach with details in the regulations and/or guidance to accomplish this task. Further, it is imperative that this regulation, as well as all other regulations, be based on the most current scientific data available.

2. Burden on State and Permit Holders - The scope and structure of the ANPRM does not lend itself to determination of burden on resources to individual National Pollutant Discharge Elimination System (NPDES) permit holders, including DOE. Although EPA expresses its sensitivity to the burden that may be placed on resources to the states, it is unclear whether this burden will be passed on from the states to permitted facilities and what the cost burden will be. The real environmental benefits from these changes, the associated resource burden, and the state funding sources for these program changes should be thoroughly identified by EPA in any subsequent public notice.

4. Criteria for Effluent-Dependent Streams - One of the three distinct objectives for the ANPRM (page 36744) is "to improve the regulation so that it may be implemented more efficiently and effectively (including cost-effectively)." Section 304(a) of the Clean Water Act does not direct EPA to consider costs and benefits when establishing criteria. Therefore, any attempts to improve cost-effectiveness must come from implementation of criteria and standards and the use of alternative approaches. One such alternative approach involves establishing separate water quality criteria for effluent dependent streams. An effluent-dependent stream is a stream or a segment which has flow primarily attributable to the discharge of treated wastewater or that in the absence of a discharge of treated wastewater and other primary anthropogenic surface or subsurface flows, would be an ephemeral stream. Too often permittees are required to treat effluents to extremely low pollutant concentrations at a great expense in order to protect ephemeral streams that are normally dry. In fact, it is probable that effluent discharges into effluent dependent streams support a greater abundance of aquatic life than would normally be present.

The ANPRM (page 36758) mentions that some states have urged the use of a flow-based threshold to justify a conclusion that an aquatic life use is not attainable. To accommodate such situations, EPA should develop guidelines for states to establish a different set of water quality

standards based upon a more reasonable intended use. EPA has established guidelines such as water-effects ratio and metals translator in order to develop site specific NPDES permit limits. For effluent dependent streams, there is little or no mixing zone and it is usually impossible to utilize these options. EPA should include a definition for effluent-dependent stream in the water quality standards regulation. In addition, effluent-dependent streams should be addressed in mixing zone requirements.

Comments on Refining Use Designations (page 36751)

Question 1. Should the regulation be revised to promote or require greater specificity in designated uses, particularly for aquatic life uses, to support watershed-specific decision-making such as is anticipated in implementing watershed or place-based initiatives?

DOE believes the regulation should not *require* greater specificity from states in identifying designated uses to support watershed decision making, but it should allow states the greatest degree of flexibility possible. States may want to use greater specificity so that certain designated uses (e.g., low pH blackwater streams) are identified within each watershed, in order to more accurately support watershed-specific decision-making.

Question 2. Where a State or Tribe utilizes broadly-defined designated uses, could the desired level of specificity be adequately addressed in State or Tribal standards that clearly articulate the intent of the designated uses as they would apply to specific waters of the State or Tribe?

Yes. This desired level of specificity would adequately be addressed in state or tribal standards to clearly articulate the intent of the designated uses. The level of state or tribal designated uses should reflect the actual federal uses.

Question 3. If EPA were to specify a required level of precision in establishing use categories, what factors should be considered in prescribing a level of specificity? That is, what factors should be considered in striking a balance between specificity sufficient to ensure uses are afforded an appropriate level of protection and flexibility/efficiency needed to allow widespread application of the classification system?

The level of precision should clearly describe the actual use categories (such as the presence or absence of drinking water supplies on a stream segment). Local zoning and land use considerations should also be factored into the specificity (e.g., industrial land zoning restrictions at remedial action sites).

Question 4. At a minimum, should the regulation require that State and Tribal aquatic life use categories include a subcategory or subcategories that may be assigned to protect aquatic communities that do not include a “fishery”? Alternatively, should the regulation explicitly reflect EPA’s current interpretation of the regulations to the effect that State and

Tribal aquatic communities whether or not there are sport or commercial fish (or any fish) present?

EPA should retain the present interpretation to protect aquatic communities. Criteria should be applied to all streams that have continuous flow while intermittent and ephemeral streams should be considered on a case-by-case basis using typical biota of the area to determine the level of protection. The regulation should also factor the types of aquatic resources available within each watershed into the level of aquatic life use subcategories.

Question 5. Should the use attainability requirements in 131.10(j)(2) be modified to recognize situations where scientifically defensible less stringent criteria may be appropriate for refined uses which reflect the reference condition for particular waters?

Yes. The use attainability requirements in 131.10(j)(2) should be modified to reflect all scientifically defensible less stringent criteria, as well as reflect all scientifically defensible more stringent criteria. If the change reflects the natural condition or the semi-permanent, human-induced condition of the water body, then it should be considered. Relaxation of standards to reflect actual use attainability can open the door for more water quality improvements to Appalachian waters at no cost to the public or the government.

Comments on Existing Uses (page 36754)

Question 1. Does EPA need to expand its guidance to explain how the current regulation addresses existing use decisions where there is some semblance of use even though the water quality is insufficient to support the use in, for example a safe or healthful manner? Should this additional guidance clarify the linkage between existing and designated uses?

EPA does need to clarify the existing use protection provisions, particularly when existing water quality is not sufficient to allow the use to occur nor has it taken place for many years (e.g., drinking water supply).

Comments on Use Attainability (page 36758)

Question 1. Although EPA believes the use removal criteria in subsection 131.10(g) have functioned reasonably well, questions have been raised about the applicability of specific section 131.10(g) criteria and the manner in which EPA interprets those criteria. EPA seeks comment on the use removal criteria. Are the six criteria sufficiently comprehensive or should other factors be considered as a basis for removing designated uses? Are the criteria too comprehensive and are certain of the criteria inappropriate as a basis for designated use removal? Is there a need to modify the existing criteria to more clearly address the full range of use removal issues that have developed since the regulation was originally published?

The six use removal criteria are not sufficiently comprehensive as a basis for removing designated uses. The addition of a seventh use removal criteria is necessary to address future land use restrictions for remedial actions that occur at contaminated waste sites. This removal criteria would apply when environmental clean up remedies restrict zoning for industrial use only. This land use restriction is necessary when the States or Tribes find that a source of drinking water is unacceptable, or is threatened by a contaminated source. States and tribes may remove a designated use which fits into this category. Use reclassification allows States and Tribes to more accurately allocate resources which support the watershed-specific decision-making.

Comments on Alternatives to Downgrading a Designated Use (page 36761)

The comment is on this topic but not on a specific question. The Department recommends that the process be simplified, and specific, attainable requirements should be established for use by states. It is nearly impossible to downgrade an existing use from the standpoint of time and money.

Comments on Narrative Criteria (page 36765)

Question 2. Reflecting current practice, should the regulation specify that States and Tribes are required to adopt narrative criteria for all waters?

DOE believes that “free-from” criteria are ambiguous from a quantitative perspective and codification in the regulation will not resolve current discrepancies in interpretation within individual states or enhance their use at the state level without accompanying identification of minimum elements of the implementation method. DOE recommends that minimum elements of the implementation method be specified.

Question 6. The current regulation requires the State or Tribe to identify the method by which the State or Tribe intends to regulate point source discharges of toxic pollutant on water quality limited segments based on such narrative criteria. Should this narrative criteria translation method apply only to point source discharges of toxic pollutants on water quality limited segments or to both point and non-point sources?

DOE recommends that the narrative criteria translation method for toxic pollutants on water quality limited segments apply to only point sources, with states being given the authority to decide on the need for control strategies, such as best management practices, for nonpoint sources.

Comments on Water Quality Criteria for Priority Pollutants (page 36767)

Question 7. Should submission of each criterion derived using translator mechanisms for review and approval or disapproval be a requirement, even where EPA previously reviewed and approved the procedure itself? If so, should implementation of derived criteria (e.g., in NPDES permit renewal and development) proceed even where EPA has not yet issued an approval/disapproval decision?

Submission and approval of each criterion derived from translator mechanisms should not be required where EPA previously reviewed and approved the procedure itself. This would appear to be a redundant activity having little if any public benefit other than delaying and further complicating regulatory and NPDES permit actions. If EPA does decide to proceed with requiring approval of individual criterion derived from translator mechanisms, implementation of derived criteria (e.g., by states in the preparation of NPDES permits) should not be authorized to proceed where EPA has not yet issued an approval/disapproval decision. Proceeding with implementation without a decision would appear to be an illogical action in the context of the precautions taken to ensure criterion are developed with extensive scientifically defensible data. This would likely impart an undue burden on permit holders with no apparent reasonable justification.

Comments on Criteria Where Data or Guidance is Limited (page 36768)

Question 2. Should EPA develop a method for derivation of alternative values for pollutants where the minimum data requirements included in EPA's criteria guidelines are not satisfied, such as the tier 2 procedure in EPA's Water Quality Guidance for the Great Lakes System?

DOE does not support expansion of the Great Lakes Water Quality Guidance Tier 2 criteria approach to other regions of the country.

Comments on Toxicity Criteria (page 36768)

Question 1. Should the regulation be modified to explicitly require States and Tribes to adopt numeric toxicity criteria, or adopt numeric toxicity values and test methods as a required means to interpret and implement the narrative criteria? Or, is the current practice acceptable, whereby some States or Tribes have numeric toxicity criteria, some utilize toxicity methods to interpret their narrative requirements of no toxics in toxic amounts, and others use toxicity mainly as a tool to assess effluent quality, but not as the basis for permit limits?

The regulation should not be revised to require states to adopt toxicity criteria or alternatively to use toxicity criteria and test methods as a required means to interpret and implement the narrative criteria. DOE advocated the use of current practices where the method to verify toxicity is left to the state's discretion. Again, this flexibility well suits the site-specific decisions that are often necessary and eliminates potentially undue resource burden and delays that often result from resolution of site-specific issues.

Comments on Sediment Quality Criteria (page 36769)

Question 1. Should the current regulation be revised to specifically address sediment quality criteria, and if so, what should such revisions address?

If EPA revises the current regulations to address sediment quality criteria for metals, DOE recommends that the regulation require consideration of site-specific conditions, such as background concentrations of metals, when developing pollutant-specific NPDES permit limits. This approach would provide flexibility to the states to address site-specific issues without slowing the permitting program or imparting an undue resource burden.

Comments on Biological Criteria, Assessment, and Implementation (page 36772)

Question 1. Should EPA amend the regulation to explicitly require States and Tribes to adopt biological criteria or are there alternative approaches that EPA should consider? Should EPA seek to ensure that biological criteria will be developed and implemented in all State and Tribal water quality programs?

The Department does not support requiring states and tribes to adopt biological criteria. Although the concept of biological criteria has merit, biological criteria have not been scientifically validated to the point where they can serve as the basis for enforceable state and tribal requirements. Further, DOE is skeptical that the biological criteria program will be focused on nonpoint sources. We believe that this program will bring an additional layer of regulatory and associated costs and that permitted point source discharges may be an easy target whether the discharges are the source of impairment or not.

Comments on Physical Criteria (page 36774)

Question 2. Would EPA technical guidance on physical criteria be useful to States and Tribes? Is it necessary?

DOE is not opposed to regulations that require explicit identification of physical criteria provided there is an accompanying exemption for those instances where the water body is targeted for a “global” erosion control or stabilization (e.g., backfilling of the stream bed) as part of an Environmental Impact Statement Record of Decision issues in accordance with the National Environmental Policy Act.

Comments on Human Health Criteria (page 36777)

Question 2. Should the regulation be modified to clarify (beyond) the guidance being prospected in 1998) the use of MCLs and MCLGs in State water quality standards? If so, what should be the basis for such intake assumptions?

MCLs and MCLGs are derived using a completely different methodology than are human health water quality criteria. MCLGs are not intended to be enforceable standards and do not consider cost. MCLs, on the other hand, do consider cost, and are therefore different from any other type of water quality criteria. It is not appropriate to mix human health standards that are derived for different purposes and using different methodologies in state water quality standards.

Comments on General Antidegradation Policy (page 36781)

Question 1. What changes or clarifications could be made to the current tiered approach to protecting waters under antidegradation that would streamline and enhance antidegradation implementation?

The cost to protect ephemeral streams to the same extent that continuous flowing streams are protected is unwarranted in many cases. Since the definition of "ephemeral stream" may cover ditches, industry often incurs high treatment costs that are not in-line with their environmental benefit. EPA should provide alternative antidegradation standards for effluent-dependent streams and for truly ephemeral streams.

Comments on Antidegradation Tier 1 (page 36782)

Question 2. Is a more detailed definition of "existing in-stream water uses: needed in the regulation? Should it be the same as "existing uses?"

The proposal should define what constitutes loss of an existing in-stream water use. For example, during construction of a facility, if storm water runoff is redirected such that an existing ephemeral stream ceases to exist, does the ephemeral stream become simply a conveyance. Does this constitute loss of an in-stream water use?

Comments on Mixing Zone Policies and Implementation Procedures (pages 36793-36794)

Question 1. Should the regulation be changed to expressly require States and Tribes to include a statement in their water quality standards indicating whether mixing zones are allowed?

The Department supports a requirement that States and Tribes must indicate whether mixing zones are allowed for different bodies of water.

Question 2. Should the regulation be changed to expressly require States and Tribes to specify procedures by which mixing zone decisions for individual discharges would be made?

DOE anticipates that most or all States and Tribes will include some guidance or criteria on mixing zone size and application in their regulations, but we support flexibility for permit writers to use judgement to deal with specific situations.

Question 5. Should the regulation require States and Tribes to identify in their mixing zone provisions what minimum water quality conditions are required within mixing zones?

DOE recommends that the regulations require States and Tribes to identify in their mixing zone

provisions what minimum water quality conditions are required. This action will set boundaries for initial, often less costly, conservative assessment or screening of the feasibility of proposed discharges before proceeding with the more intense and expensive mixing zone analysis using approved methodologies. The regulations should also allow for variable mixing zones if restrictions to address specific circumstances or conditions are incorporated.

Comments on Wetlands (page 36794)

Question 1. Should “waters of the United States” be defined in the water quality standards regulation?

Wetlands should be considered waters of the United States and afforded the same protection as other surface water bodies. However, they need to be considered individually and with the appropriate water quality standards designed specifically for wetlands. Examples of parameters to consider would be things such as DO and pH values. The applicability of standards for wetlands needs to be based on sound scientific data and not generalizations with other surface water bodies.

Question 3. Do the current regulation and existing guidance provide the necessary regulatory clarity, technical tools, and incentives for States and Tribes to develop appropriate standards for wetlands?

No, current regulations do not reflect wetlands specifically. Not only do EPA and the States and Tribes need to address the specific standards for wetlands, but consideration should be given to flow into the wetland. Groundwater remediation has the potential of drying up a wetlands in the process of cleaning up groundwater.

Comments on Integration of Data in Water Quality Assessments (page 36799)

Question 6. How should the policy of independent application address the distinction between situations where adequate rigorous data are available for each assessment technique and situations where available data for one or more of the assessment techniques are limited in quantity? Specifically, should the policy be modified to more explicitly encourage or require, where feasible, additional monitoring, particularly where limited data are to be used as a basis for regulatory action?

The policy of independent application should provide latitude for states to exercise discretion where available data for one or more of the assessment techniques are limited in quantity or quality. Use of limited data is not recommended as a basis for regulatory action. Data should be scientifically defensible and include a statistically adequate sample set before use, otherwise, the data should be discounted and greater weight given to remaining, available, more representative data.

Comments on Independent Application (page 36803)

Question 9. Would a policy allowing numeric criteria to not apply to all waters where supported by scientifically defensible data would be workable? Would it unnecessarily complicate the regulatory program, for example by delaying the issuance of permits? Are existing mechanisms of criteria setting and permit issuance sufficiently flexible?

Potentially, the situation exists where biological, toxicity, and chemical data disagree and the use of independent application in this situation would force unnecessary and burdensome requirements on dischargers. To address this issue, greater latitude should be given to states to determine when limits on a given criterion are necessary. The ANPRM identified an approach in which statements could be added to the state's water quality standards that explain circumstances under which other applicable criteria would not apply at a particular site or would have to undergo some review and revision. Accommodation for these types of situation, through use of statements limiting applicability, introduces a level of complexity into the State or Tribal programs. DOE is concerned that this will slow NPDES permitting and could result in the cost being passed on to NPDES permit holders. DOE prefers that independent application be left to the States or Tribes' discretion.