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December 16, 2005

By Hand

Roseann B. MacKechnie, Clerk of Court  
United States Court of Appeals for the Second Circuit  
Thurgood Marshall U.S. Courthouse at Foley Square  
40 Centre Street  
New York, NY 10007

Re: Catskill Mountains Chapter of Trout Unlimited Inc. v. City of New York  
Docket Number 03-7203

Dear Ms. MacKechnie:

The City of New York respectfully submits the following response to the questions posed by this Court in its December 2, 2005 directive. The Court initially posed these questions at oral argument. My answer at that time was incorrect. I respectfully request that the Court consider the following analysis in lieu of my answer to Chief Judge Walker's question during the argument.

The Court asks whether Section 302(b)(2)(A) of the Clean Water Act "and its state analog," 6 NYCRR § 702.17, allow the State of New York flexibility in drafting a SPDES permit for the Shandaken Tunnel. As discussed below, the Clean Water Act provision applies only to EPA and cannot be used by states, and applies only where no water quality standards have been adopted in accordance with Section 303 of the Act. While, in contrast, the State regulation could allow for a temporary variance from limitations based on New York State water quality standards in the Shandaken Tunnel permit, for the reasons discussed below, the City does not believe that this provision resolves the significant burdens placed on water allocations that arise from the application of the NPDES program to water transfers.

Clean Water Act Section 302

Section 302(a) authorizes the Administrator of EPA to establish water quality related effluent limitations only where two conditions are met: (1) water quality standards have not been adopted under § 303, and (2) the technology-based limitations in NPDES permits, imposed pursuant to § 301(b), are inadequate to achieve the water quality goals described in § 302(a). Section 302(a) provided an important process in the early days of the NPDES

program, when neither EPA nor most states had adopted water quality standards pursuant to § 303. Once states adopt water quality standards, however, the states themselves (as well as EPA, where EPA administers the NPDES program) must include water quality based effluent limitations (“WQBELs”) in NPDES permits under § 301(b)(1)(C) where technology-based limitations are insufficient to achieve those standards. There is no statutory exception corresponding to § 302(b)(2)(A) to WQBELs imposed pursuant to § 301(b)(1)(C).

In other words, § 302 served as a stopgap in the Act’s infancy. It allowed EPA (but not states) to impose effluent limitations based on water quality concerns, in advance of the lengthy and complex process of developing water quality standards and classifying water bodies under § 303. Section 302(b) allowed for an exemption from these makeshift effluent limitations under certain conditions, and remains as a vestige of the early days of the Act, before water quality standards were adopted either by EPA under § 303(b) or by states under § 303(c). In any event, § 302 is not and could not be the basis for any of the effluent limitations in the draft SPDES permit for the Shandaken Tunnel, which has been developed by New York State rather than by U.S. EPA, and which was developed long after New York established water quality standards under § 303 of the Act.

Section 302(b)(2)(A) applies only to limitations “required by” § 302(a).<sup>1</sup> Accordingly, it has no relevance to this case. Moreover, if this Court were to create a new exemption based on § 302(b)(2)(A) from the requirements of § 301(b)(1)(C), it would disrupt the purpose of the Act, as the dischargers actually intended to be regulated by the NPDES program – industrial and municipal wastewater dischargers – would take advantage of such a loophole.

#### Variances from Water Quality Based Effluent Limitations Based on Water Quality Standards

The Clean Water Act also allows variances from effluent limitations established pursuant to published water quality standards. As described below, the regulatory authority is somewhat convoluted, but in any event is entirely independent of Section 302 of the Act.

The federal regulations concerning states’ implementation of water quality standards under Section 303 of the Act specifically anticipate the use of variances:

States may, at their discretion, include in their State standards, policies generally affecting their application and implementation, such as mixing zones, low flows and *variances*. Such policies are subject to EPA review and approval.

40 CFR § 131.13 (emphasis added).

The history of states’ authority to grant variances from WQBELs, and the standards and conditions for such variances, are described in Section VIII.B. of the Preamble to

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<sup>1</sup> That the relief described in § 302(b)(2) of the Act is available only in connection with limitations established by the Administrator pursuant to § 302(a) is also confirmed in the applicable federal regulations. See 40 CFR §§ 122.21(m)(5) and (n)(3) (“A modification under CWA section 302(b)(2) of the requirements *under section 302(a)*” [emphasis added]).

the Proposed Water Quality Guidance for the Great Lakes System, 58 FR 20802, 20921-92 (April 16, 1993) (“Great Lakes Preamble”). In connection with the Great Lakes Initiative, EPA has itself adopted regulations providing for variances from WQBELs. 40 CFR Part 132, Appendix F, Procedure 2, “Variances from Water Quality Standards for Point Sources.” As the Great Lakes Preamble suggests, these regulations incorporate as criteria for variances, verbatim, the standards for removing a designated use that has been established for a water body in connection with a state’s assignment of water quality standards. Compare 40 CFR Appendix F, Procedure 2(C) with 40 CFR § 131.10(g). These standards are – and should be – more stringent than the “reasonable relationship” standard set forth in Section 302(b)(2). These regulations also provide that such a variance “shall not exceed five years or the term of the NPDES permit, whichever is less.” 40 CFR Appendix F, Procedure 2(B).<sup>2</sup>

EPA provides further guidance concerning variances from WQBELs in its Water Quality Standards Handbook (1994). Consistent with EPA’s own regulations for the Great Lakes, Section 5.3 of the Handbook explains that EPA expects states to use the same criteria in assessing requests for such variances that are used to evaluate modifications to published water quality standards themselves:

Variance procedures involve the same substantive and procedural requirements as removing a designated use ... but unlike use removal, variances are both discharger and pollutant specific, are time limited, and do not forego the currently designated use.

...

State variance procedures, as part of State water quality standards, must be consistent with the substantive requirements of 40 CFR 131.

*Id.* at 5-12. The Handbook goes on to note that variances must be granted “for a specific period of time and must be rejustified upon expiration but at least every 3 years.”<sup>3</sup> *Id.* A copy of Section 5.3 of the Handbook, “Variances from Water Quality Standards,” is attached. The Handbook is available at <http://www.epa.gov/waterscience/library/wqstandards/handbook.pdf>.

The regulation referred to in the Court’s December 2 request is New York’s implementation of this directive. The text of the regulation, 6 NYCRR § 702.17, is virtually identical to the EPA variance provisions for the Great Lakes Initiative, 40 CFR Part 132, Appendix F, Procedure 2.<sup>4</sup> Consistent with EPA’s interpretation set forth in the Water Quality

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<sup>2</sup> Under § 402(b)(1)(B) of the Act, the term of a NPDES permit issued by a state may not exceed five years. 33 U.S.C. § 1342(b)(1)(B).

<sup>3</sup> EPA resolved this discrepancy between 3-year periods, based on re-evaluations of water quality standards under § 303(c)(1), and longer periods, such as New York’s 5-year periods, based on the terms of NPDES permits, in a 1992 Memorandum from the Office of General Counsel, a copy of which is attached.

<sup>4</sup> EPA has adopted similar regulations for other jurisdictions. See, e.g., 40 CFR §§ 131.33(d) (Idaho), 131.34(c) (Kansas), and 131.40(c) (Puerto Rico).

Standards Handbook, New York's regulation (like the Great Lakes regulation) specifies precisely the criteria for variances from WQBELs that apply to removing designated uses under 40 CFR § 131.10(g). *See* 6 NYCRR § 702.17(b). Also consistent with EPA's interpretation, New York may issue variances only for limited terms – in New York, the 5-year term of a SPDES permit. *See* 6 NYCRR § 702.17(a)(5), New York Environmental Conservation Law § 17-0817(1).

#### Variances Are Not the Solution to the Problems Created by Applying the NPDES Program to Water Transfers

As discussed in the City's briefs on this appeal as well as at oral argument, requiring NPDES permits for water transfers would create serious burdens on water management for drinking water supply, flood management, and other municipal functions. One such burden that has been extensively addressed by the parties is the requirement that effluent limitations in NPDES permits ensure compliance with water quality standards. While, as noted above, states may issue variances from WQBELs, the availability of variances is not a solution to the problems caused by requiring NPDES permits for water transfers.

Most fundamentally, variances from WQBELs are temporary, while water transfer structures are generally designed to be permanent. Moreover, variances are supposed to include conditions designed to bring about compliance with water quality standards over time. New York State's regulations, for example, must require "that reasonable progress be made toward achieving the effluent limitation based on the standard or guidance value...." 6 NYCRR § 702(e)(2). *See also* 40 CFR Part 132, Appendix F, Procedure 2.F.2. This requirement – like many applicable to the NPDES program – assumes the existence of, or necessity for, a treatment facility. Such a facility likely does not exist, and may make no sense, in connection with a transfer of untreated water.

Thus, variances do not solve the problems created by applying the NPDES program to water transfers, but would at best only defer them. Frequent re-evaluations of permit conditions, and requirements that facilities make progress toward achieving water quality goals that cannot reasonably be met, are precisely the types of burdens that would constitute an abrogation of states' water allocations in contravention of Clean Water Act § 101(g). On the other hand, if this Court were to sanction permanent variances, it would frustrate the purpose of the Act by allowing the wastewater treatment works and industrial dischargers, who were actually intended to be regulated under the NPDES program, to avoid meeting water quality standards, without making efforts to upgrade treatment facilities to come into compliance over time.

The problem faced by New York City is that there seems to be no mechanism – short of a forty-acre chemical treatment facility which none of the parties to this litigation, or other stakeholders, would support – that will ensure compliance with the water quality standard for turbidity. (*See, e.g.*, A991-997.) This is not a temporary problem; it arises from the geography and geology of the watershed of the Schoharie reservoir. (A915.) While the City is studying a number of alternatives that may reduce turbidity in the discharges from the Shandaken Tunnel, and while we have committed to implement any such measures that are determined to be feasible, effective, and cost-effective (A1791), no process short of a treatment plant will cure the problem, which is caused by natural conditions in the watershed. That is, we do not believe that

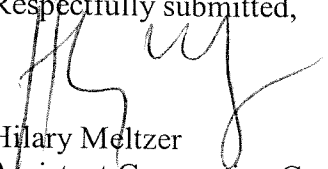
we could continue to meet the conditions of a variance under 6 NYCRR § 702(e)(2). Thus, the problems created by requiring a NPDES permit for the Tunnel cannot be solved by a variance, given the time limitations and the requirements that discharges allowed pursuant to variances come into compliance over time.

In addition, although the Court referred to the variance provisions as the “analog” of § 302(b)(2)(A), the criteria for obtaining a variance on economic grounds are much stricter. Section 302(b)(2)(A) authorizes modifications where there is “no reasonable relationship between the economic and social costs and the benefits to be obtained, including attainment of the objective of [the Act] from achieving such limitation.” A variance, in contrast is allowed where a WQBEL “would result in substantial and widespread economic and social impact.” *See, e.g.,* 6 NYCRR § 702.17(b)(6). In the case of the Shandaken Tunnel, the City believes that there is no reasonable relationship between the costs of a chemical treatment facility, the only mechanism that would ensure compliance with water quality standards, and the incremental benefit of such a facility in comparison to the other turbidity control and reduction measures under study. As unwarranted as such a facility would be, however, given the estimated cost of several hundred million dollars, construction would probably not cause “substantial and widespread economic and social impact,” given the size of the capital budget of the New York City Department of Environmental Protection.<sup>5</sup>

Finally, if variances were the solution to the problems created by the application of the NPDES program to water transfers, they would have to be granted routinely. This case and the transfer at issue in *South Florida Water Management District v. Miccosukee*, 541 U.S. 95 (2004), are not unique; water containing pollutants is routinely transferred by public agencies. Variances should be exceptional, not routine. Using variances regularly in NPDES permits for transfers of untreated water would inevitably erode the rigor of the program for other NPDES-permitted entities, including the wastewater treatment works and industrial uses that are at the heart of the program. If applying the NPDES program to water transfers causes problems that can be solved only by frequent variances, Congress could not have intended the Program to be applied to water transfers in the first place, and the reservation of water allocations to states under Clean Water Act §§ 101(g) and 510 forbids such application.

The City respectfully urges this Court not to expand the intentionally narrow exemptions from water quality based requirements in the NDPEs program for the purpose of resolving the problems created by applying that program to water transfers. Such a reading would truly undermine the logic of the Act and compromise the environmental benefits it is intended to provide.

Respectfully submitted,

  
Hilary Meltzer  
Assistant Corporation Counsel

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<sup>5</sup> Were the City to seek a variance for the Shandaken Tunnel, we would instead rely on “naturally occurring pollutant concentrations” as the basis. 6 NYCRR § 702.17(b)(1).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 24 1992

OFFICE OF  
GENERAL COUNSEL

MEMORANDUM

SUBJECT: Request for Views on Allowable Duration of Water  
Quality Standards Variances

FROM: Catherine A. Winer, Attorney *CAW*  
Water Division (LE-132W)

THRU: Susan G. Lepow *SGL*  
Associate General Counsel  
Water Division (LE-132W)

TO: Dale Vodehnal, Chief  
Water Quality Branch (8WM-WQ)

Christine Phillips, Chief  
Media Programs and General Law Branch (8RC)

You have requested our views on an issue which has arisen during your review of recently revised Colorado water quality standards. Specifically, you ask whether you can disapprove Colorado's variances procedures on the grounds that, under the Clean Water Act and existing regulations, variances must have an initial term of three years or less. For the reasons below, I believe that, at least on its face, the Colorado provision meets the requirements for duration of water quality standards variances under the Clean Water Act.

Neither the Clean Water Act nor 40 C.F.R. Part 131 of EPA's regulations directly addresses the question presented. The Clean Water Act does not speak directly to water quality standards variances, and EPA's regulations merely state that states may adopt policies on variances, which are subject to EPA approval. 40 C.F.R. 131.13. Since EPA's approval or disapproval must be based on the "requirements of the Act," the permissible scope of variances must be discerned from the general structure of the Act and by analogy.

Section 303(c) of the Clean Water Act requires states to conduct a triennial review of their water quality standards. If, as a result of such review, that state decides to adopt new or revised water quality standards, they must be submitted to EPA for approval. One of the goals of the Act is to achieve, where

attainable, that level of water quality which provides for the protection of fishable/swimmable uses. Under our regulations, where a standard is revised to provide for less than fishable/swimmable water, the state must conduct a use attainability analysis (UAA) as justification for such revision and must reexamine the validity of the UAA every three years as part of the triennial review. 40 C.F.R. 131.10(g) and (j); see also preamble discussion at 48 FR 51401 (November 8, 1983). Such standard is not required to expire and be readopted every three years; rather, as with other standards, it is assumed to be effective until modified through rulemaking. If the state fails to reassess the standard triennially (or if we believe the UAA to be inadequate), EPA can disapprove the standard. Section 303(c).

Variances have been accepted by EPA under circumstances in which downgrading of standards would be permitted, on the grounds that a variance granted to particular dischargers for a limited duration is environmentally preferable to permanent downgrading of the whole segment. This position was initially explained in General Counsel Opinion No. 58, and was also discussed in the 1983 preamble to EPA's regulation. 48 FR 51400 at 51403 (November 8, 1983). (While both the opinion and the preamble emphasized the "temporary" or "limited" duration of variances, neither articulated a three-year maximum.)

Since EPA has effectively taken the position that variances are approvable as temporary downgrades, the requirements for approvable variances are logically derived from those for downgrades. Neither the regulations nor the preamble define "temporary" as limited to three years. Like other standards, variances are subject to the triennial review requirement. As noted above, that requirement does not require expiration and re-adoption of standards at least every three years, but rather only a review of their adequacy (which includes, in the case of less than fishable/swimmable uses, review of the use attainability analyses upon which they were originally based).

Section 3.1.7 of Colorado's regulations allows the granting of water quality standards variances (called temporary modifications by the state) for periods longer than three years, where the circumstances are expected to prevent attainment for such longer period. Such variances must have an expiration date specified at the time they are adopted through rulemaking, they must be reassessed at least every three years, and they may be extended or eliminated through rulemaking. Nothing that has been provided to me suggests that the three-year assessment called for in section 3.1.7(3) is a sham. Indeed, the February 26, 1991 memorandum from Assistant Attorney General Martha Rudolph to the Colorado Water Quality Commission stated that the informational hearings used to receive information on the continuing validity of variances are the same hearings used to assess other standards. The memorandum notes that "For temporary modifications [variances] with a longer than

three year life, the Commission will consider whether the facts that formed the basis for the original expiration date have changed enough to warrant reconsidering the temporary modification in a rulemaking hearing." Mem. at 3.

Accordingly, it appears that Colorado's procedures relating to the duration of variances meet the requirements of the Clean Water Act.

Your January 6, 1992 memorandum sets out various arguments in support of the position that issuing temporary modifications that extend beyond three years is "clearly inconsistent with federal variance requirements." I do not believe those arguments provide a basis for disapproval of Colorado's provision under section 303(c) of the Clean Water Act.

While I agree that the triennial review requirement is a fundamental element of the standards program, it can be satisfied by the periodic review of a state's standards and any use attainability analyses upon which those standards were based. Standards need not expire at the end of a three-year period in order to satisfy the triennial review requirement; neither General Counsel Opinion No. 58 nor your memorandum sets out a basis for interpreting the triennial review requirement differently for variances.

Second, the General Counsel opinion cited does not identify a three-year limitation on variances; rather it simply stresses that they are to be of limited duration and cannot be extended without a new showing of unattainability. While it appears that there has been some tendency to assume that a reasonable limited duration would be three years (see, e.g., introduction to the November 1990 National Assessment of State Variance Procedures), such a requirement is not spelled out in any regulation currently in effect. The draft proposed revisions to the water quality standard regulation do include such a requirement, but that provision of course has not yet been proposed, much less been promulgated as a final regulation, and therefore cannot be said to describe the requirements of the Act in a definitive way. If such a provision is proposed, the Agency will need to set forth its basis.

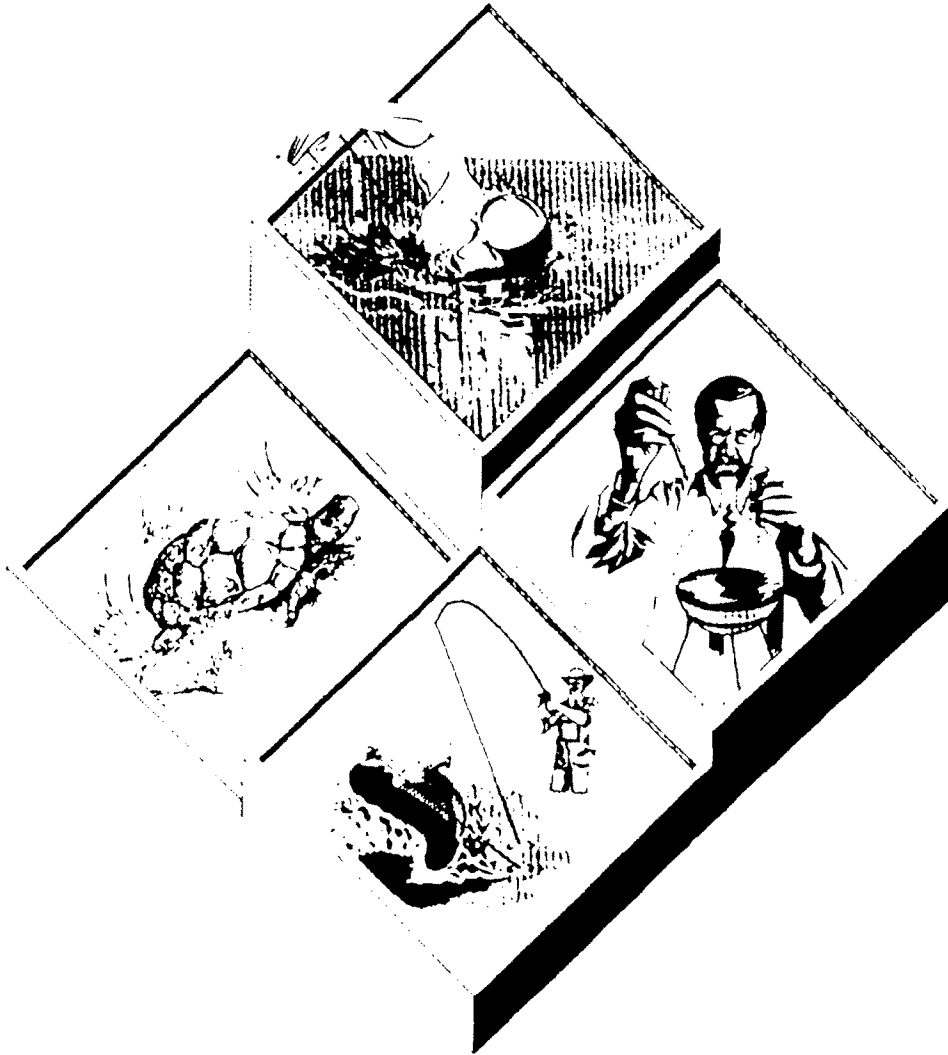
cc: Tudor Davies  
Bill Diamond  
Dave Sabock  
Kent Ballentine  
Lee Schroer  
Cathy Winer  
Max Dotson (8WM)  
Peggy Livingston (8RC)





# Water Quality Standards Handbook:

## Second Edition



"... to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

Contains Update #1  
August 1994

Section 101(a) of the Clean Water Act



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**AQUATIC LIFE**

Acute criteria (CMC)	1Q10 or 1B3
Chronic criteria (CCC)	7Q10 or 4B3

**HUMAN HEALTH**

Non-carcinogens	3Q05
Carcinogens	Harmonic mean flow

**Where:**

**1Q10** is the lowest one day flow with an average recurrence frequency of once in 10 years determined hydrologically;

**1B3** is biologically based and indicates an allowable exceedence of once every 3 years. It is determined by EPA's computerized method (DFLOW model);

**7Q10** is the lowest average 7 consecutive day low flow with an average recurrence frequency of once in 10 years determined hydrologically;

**4B3** is biologically based and indicates an allowable exceedence for 4 consecutive days once every 3 years. It is determined by EPA's computerized method (DFLOW model);

**3Q05** is the lowest average 30 consecutive day low flow with an average recurrence frequency of once in 5 years determined hydrologically; and

**harmonic mean flow** is a long term mean flow value calculated by dividing the number of daily flows analyzed by the sum of the reciprocals of those daily flows.

**Exhibit 5-1. EPA recommendations for design flows**

EPA has produced guidance on flow considerations (USEPA, 1986d) which calculates design flows based on steady-state modeling. Two design flows are calculated, one for the criterion continuous concentration (CCC) and one for the criterion maximum concentration (CMC). The CCC is the 4-day average concentration of a pollutant in ambient water that should not be exceeded more than once every 3 years on average. The CCC is therefore, a chronic concentration. The CMC is a 1-hour average concentration in ambient waters that should not be exceeded more than once every 3 years on average. The CMC is an acute concentration. Note that when a criterion specifies a 4-day average concentration that should not be exceeded more than once every

3 years, this should not be interpreted as implying that a 4Q3 low-flow is appropriate for use as the design flow.

EPA had recommended interim use of the 1Q5 and 1Q10 low-flow as the CMC design flow and the 7Q5 and 7Q10 low-flows as the CCC design flow for unstressed and stressed systems, respectively. Further consideration of stress placed on aquatic ecosystems resulting from exceedences of water quality criteria indicates that there is little justification for different design flows for unstressed and stressed systems. All ecosystems have been changed and, therefore, stressed as a result of human activities. Therefore, the recommended design flow for CMC is 1Q10 and for CCC is 7Q10. States may designate other design or low-flows but such flows, must be scientifically justified. That many streams within a State have no flow at 7Q10 is not adequate justification for designating alternative flows.

**5.3 Variances From Water Quality Standards**

EPA first formally indicated allowability of State WQS variance provisions in Decision of the General Counsel No. 44, dated June 22, 1976, which specifically considered an Illinois variance provision, and expanded upon the acceptability of State WQS variance procedures in Decision of the General Counsel No. 58 (OGC No. 58) dated March 29, 1977 (published, in part, at 44 F.R. 39508 (July 6, 1979)). Subsequent guidance has elaborated on or clarified the policy over the years. For example, the Director of EPA's Criteria and Standards Division transmitted EPA's definition of a WQS variance to the Regional WQS Coordinators on July 3, 1979, and on March 15, 1985, the Director of the Office of Water Regulations and Standards, responding to questions raised on WQS variances, issued a reinterpretation of the factors that could be considered when granting variances.

Variance procedures involve the same substantive and procedural requirements as removing a designated use (see section 2.7, this Handbook), but unlike use removal, variances are both discharger and pollutant specific, are time-limited, and do not forego the currently designated use.

A variance should be used instead of removal of a use where the State believes the standard can ultimately be attained. By maintaining the standard rather than changing it, the State will assure that further progress is made in improving water quality and attaining the standard. With a variance, NPDES permits may be written such that reasonable progress is made toward attaining the standards without violating section 402(a)(1) of the Act, which requires that NPDES permits must meet the applicable water quality standards.

State variance procedures, as part of State water quality standards, must be consistent with the substantive requirements of 40 CFR 131. EPA has approved State-adopted variances in the past and will continue to do so if:

- each individual variance is included as part of the water quality standard;
- the State demonstrates that meeting the standard is unattainable based on one or more of the grounds outlined in 40 CFR 131.10(g) for removing a designated use;
- the justification submitted by the State includes documentation that treatment more advanced than that required by sections 303(c)(2)(A) and (B) has been carefully considered, and that alternative effluent control strategies have been evaluated;
- the more stringent State criterion is maintained and is binding upon all other dischargers on the stream or stream segment;

- the discharger who is given a variance for one particular constituent is required to meet the applicable criteria for other constituents;
- the variance is granted for a specific period of time and must be rejustified upon expiration but at least every 3 years (Note: the 3-year limit is derived from the triennial review requirements of section 303(c) of the Act.);
- the discharger either must meet the standard upon the expiration of this time period or must make a new demonstration of "unattainability";
- reasonable progress is being made toward meeting the standards; and
- the variance was subjected to public notice, opportunity for comment, and public hearing. (See section 303(c)(1) and 40 CFR 131.20.) The public notice should contain a clear description of the impact of the variance upon achieving water quality standards in the affected stream segment.