



January 1991

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Recommended Citation

Stowers, Linda (1991) "Dilution is Not the Solution," *Journal of Natural Resources & Environmental Law*:
Vol. 6 : Iss. 2 , Article 5.
Available at: <https://uknowledge.uky.edu/jnrel/vol6/iss2/5>

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Dilution is Not the Solution

This Note will discuss the issue of whether the U.S. Environmental Protection Agency [hereinafter "EPA"] has the authority to approve the use of dilution after an effluent has been discharged into the receiving water as an Individual Control Strategy¹ [hereinafter "ICS"] designed to meet the requirements of Section 304(l)(1)(D) of the Clean Water Act,² [hereinafter "CWA" or "the Act"], where that provision requires that the ICS "produce a reduction in the discharge of toxic pollutants from point sources identified by the State under this paragraph" In addition, this Note will discuss the broader application of the use of dilution in the receiving waters to meet water quality standards and effluent limitations. The EPA provides for the use of dilution through its "General Policies" statement, "States may . . . include in their State [water quality] standards, policies generally affecting their application and implementation, such as mixing zones Such policies are subject to EPA review and approval."³ This Note takes the position that EPA does not have the authority to approve the use of mixing zones [hereinafter "MZ"] and zones of initial dilution [hereinafter "ZIDS"] to meet Section 304(l) of the CWA⁴ requirements or to meet water quality standards and effluent limitations since the use of the dilutionary capacities of the receiving waters is inconsistent with the goals and objectives of the Clean Water Act and Congress' stated position against the use of dilution to solve water quality problems.

¹ Individual control strategy as defined by EPA is "a final [National Pollutant Discharge Elimination System] permit, a draft NPDES permit with a schedule for issuing a final permit, or for an on-site response action under CERCLA, the decision document for the response action." 54 Fed. Reg. 23,868, 23,887 (1989)(to be codified at 40 C.F.R. § 123) see also 40 C.F.R. § 123.46(c)(1990)(which defines an ICS as "a final NPDES permit with supporting documentation showing that effluent limits are consistent with an approved wasteload allocation, or other documentation which shows that applicable water quality standards will be met not later than three years after the [ICS] is established.")

² 33 U.S.C. § 1314(l)(1)(D) (1986 & Supp. I 1990).

³ 40 C.F.R. § 131.13 (1990).

⁴ 33 U.S.C. Section 1314(l)(1986 & Supp. I 1990).

PRELIMINARY CONSIDERATIONS

A. *Jurisdiction for Judicial Review*

The United States Court of Appeals has the jurisdiction to review EPA approval of a state ICS and EPA issuance of an ICS⁵ pursuant to Sections 509(b)(1)(E) and (G) of the Clean Water Act⁶. But petitions for review of EPA approval or disapproval must meet a narrow window of 120 days from the time of EPA's notice of final approval or disapproval. Failure to meet that window precludes review of the ICS that incorporates a MZ or a ZID unless the Petitioner can meet one of the exceptions provided in *Eagle-Picher Industries v. United States E.P.A.*⁷

MZs and ZIDs included in state-issued National Pollutant Discharge Elimination System permits [hereinafter "NPDES"] must be reviewed in state courts, since state-issued NPDES permits have been declared to be state rather than federal law.⁸

The use of a MZ or a ZID may possibly be challenged under the Citizens suit provisions of the Clean Water Act.⁹ Such a suit may be possible under the theory of pendent jurisdiction, especially when combined with allegations of violations of a water quality standard or effluent limitations or a failure on the part

⁵ 33 U.S.C. § 1314(f)(3) (1986 & Supp. I 1990). (If a state fails to develop an ICS or fails to develop an ICS that meets EPA approval, EPA has the authority and obligation to develop the ICS for the particular point source.). See *Judicial Review of Decision under 304(f)*, EPA's initial interpretation of jurisdiction for judicial review of EPA's approval of ICS's), 54 Fed. Reg. 23,868, 23,895 (1989), and (subsequent clarifications) 55 Fed. Reg. 22,748, 26,201 (1990)(to be codified at 40 C.F.R. § 123).

⁶ 33 U.S.C. § 1369(b)(1)(E) and (G)(1986 & Supp. I 1990).

⁷ 759 F.2d 905 (D.C. Cir. 1985) The Federal District Court indicated that [e]xceptions occasionally may be justified in the light of changed circumstances giving rise to a new cause of action beyond the statutory period for review; compelling case precedent that makes it clear beyond doubt that the claim was not ripe during the statutory period; or clear evidence that a failure to consider a petitioner's claims would work a manifest injustice.

Id. at 909. See also *National Labor Relations Board Union v. Federal Labor Relations Authority*, 834 F.2d 191 (D.C. Cir. 1987); *Environmental Defense Fund v. EPA*, 852 F.2d 1316 (D.C. Cir. 1988).

⁸ *Jurisdiction to Review Informal EPA Influence upon State Decisionmaking Under the Federal Water Pollution Control Act: Shell Oil v. Train*, 92 HARV. LAW REV. 1814, 1820 (1979).

⁹ 33 U.S.C. § 1365 (1986 & Supp. I 1990).

of EPA or the state to perform a nondiscretionary function.¹⁰

B. Attorney Fees

In a citizen's suit, the prevailing party's attorney fees may be recovered under Section 505(d) of the Clean Water Act.¹¹ In review of EPA's approval of an ICS, if the petitioner prevails or substantially prevails, then the attorney fees may be sought under Section 509(b)(3) of the CWA.¹²

C. Standard of Review

The Administrative Procedure Act [hereinafter "APA"],¹³ authorizes the United States Court of Appeals to "set aside agency action . . . found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."¹⁴ EPA has stated that for purposes of review, the Court of Appeals must determine that EPA's approval "was in error" (*i.e.*, that the approved limitations would not meet water quality standards or effluent limitations).¹⁵

INTRODUCTION

This note presents a simple yet fundamental issue pertaining to the objectives and goals of the Clean Water Act and its 1987 Amendments.¹⁶ Can the EPA approve the use of dilution in the receiving waters to meet the statutory requirements of Section 304(l)(1)(D) of the CWA, that an ICS be developed that will "produce a reduction in the discharge of toxic pollutants from a point source?"

Section 304(l) of the CWA requires reduction in the discharge of toxic pollutants, a requirement consistent with Congress' goal

¹⁰ See *United Mine Workers of America v. Gibbs*, 383 U.S. 715, (1966). (This Court declared that pendent jurisdiction was included in the inherent power of the court to hear both federal and state claims of a particular action if the entire action comprised one case. The author knows of no case where pendent jurisdiction has been used to provide jurisdiction to a federal court to review a state-issued NPDES permit in a CWA citizen's suit.).

¹¹ 33 U.S.C. § 1365(d) (1986 & Supp. I 1990).

¹² *Id.* at § 1369(b)(3).

¹³ 5 U.S.C. §§ 500-576 (1977 & Supp. I 1990).

¹⁴ *Id.* at § 706(2)(A).

¹⁵ 55 Fed. Reg. 22,749 (1990)(to be codified at 40 C.F.R. § 123); 55 Fed. Reg. 26,202 (1990)(to be codified at 40 C.F.R. § 123).

¹⁶ Water Quality Act of 1987, Pub.L. No. 100-4, 101 Stat. 7 (1988).

of eliminating all discharges of effluent into navigable waters.¹⁷ Using the dilutional capacity of the receiving waters to meet water quality standards and effluent limitations does not meet the statutory requirements of Section 304(l) nor is it consistent with the goals and objectives of the CWA. Such use results in zones of lethality where acutely toxic and chronically toxic conditions are permitted to exist. Further, such use is inconsistent with the EPA's position against the use of dilution as a solution to a water pollution problem.¹⁸ The approval of an ICS which uses dilution in fact will allow dilution to solve a recognized water pollution problem.

Congress intended Section 304(l) of the CWA to result in a reduction in the amount of toxic pollutants being discharged into the nation's navigable waters. Dilution of toxic pollutants in the effluent will not achieve that result. Since only the concentration of the toxic pollutants in the stream will be decreased; the same amount of pollutants will be discharged into receiving waters.¹⁹

Further, the use of dilution is contrary to the goals and objectives of the CWA.²⁰ Congress intends that zero-discharge (elimination of all pollutant discharges into navigable waters) be *the* goal of the EPA and the states in managing the NPDES program. That goal can only be achieved by forcing dischargers to develop the necessary technology to treat their wastes.²¹ EPA is ignoring its mandate from Congress by approving an ICS that uses dilution to meet the water quality standards and effluent limitations, giving only lip service to these goals of the CWA.

Regardless of the labels that EPA uses, MZs and ZIDs are areas in a body of water where the discharge is diluted and

¹⁷ 33 U.S.C. § 1251(a)(1986 & Supp. I 1990).

¹⁸ See *infra* notes 134-153, 160-170 and accompanying text where EPA has prohibited dilution in the waste treatment process and in meeting the Clean Air Act requirements.

¹⁹ Effluent limitations may be expressed in both numerical and narrative terms, including quantity, concentration, and mass limitations. See *Ford Motor Co. v. United States E.P.A.*, 567 F.2d 661, 662 (6th Cir. 1977) (Effluent limitations are described as "any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources . . . including schedules of compliance.") (citation omitted).

²⁰ 33 U.S.C. § 1251 (1986 & Supp. I 1990); see *infra* notes 97-116 and accompanying text.

²¹ *State of Oklahoma v. E.P.A.*, 908 F.2d 595, 609 (10th Cir. 1990) (The court stated that "the [Clean Water] Act's legislative history reveals that Congress intended the CWA to be 'technology-forcing.'").

acutely and chronically toxic conditions are allowed to exist so that at a point some distance from the outfall, water quality standards and effluent limitations are met by the gradual dilution of the effluent in the receiving waters.²² In approving an ICS containing a MZ or a ZID the EPA would, in effect, approve the use of receiving waters as part of the waste treatment process of the point source.²³ EPA's approval of such an ICS is clearly antithetical to Congress' stated policy against the use of dilution to meet water quality standards.²⁴

Since 1972, Congress has taken a strong stand against the use of the nation's rivers, lakes and streams as part of the waste treatment process.²⁵ Congress' intent in shifting the regulatory basis of the CWA was to avoid the problem of determining how much pollution a body of water could handle by requiring that dischargers meet effluent limitations that would prevent pollution in the first place.²⁶ EPA's approval of the use of dilution through a MZ or ZID would be contrary to Congress' intent.

In approving the use of dilution to meet water quality standards and effluent limitations, EPA has taken an inconsistent stand in regard to several of its own rules and regulations.²⁷ EPA has made it clear in its pretreatment standards,²⁸ removal credits,²⁹ best available technology [BAT] regulations,³⁰ and In-

²² See *infra* notes 56-72 and accompanying text.

²³ But see *infra* note 84 and accompanying text.

²⁴ "The Conference substitute specifically bans pollution dilution as an alternative to waste treatment." S. CONF. REP. 1236 to accompany S. 2770, 92d Cong., 1st Sess., reprinted in 1972 U.S. CODE CONG. & ADMIN. NEWS 3668, 3778.

²⁵ See *infra* note 84 and accompanying text.

²⁶ The legislation recommended by the Committee proposes a major change in the enforcement mechanism of the Federal Water pollution control program from water quality standards to effluent limits The Committee adopted this substantial change because of the great difficulty associated with establishing reliable and enforceable precise effluent limitations on the basis of a given stream quality Under this Act the basis of pollution prevention and elimination will be the application of effluent limitations. Water quality will be a measure of program effectiveness and performance, not a means of elimination and enforcement."

S.REP. No. 414, 92d Cong., 2d Sess., reprinted in 1972 U.S. CODE CONG. & ADMIN. NEWS 3668, 3725. See *Water Pollution Control Legislation: Hearings on H.R. 11896 and H.R. 11895 Before the House of Representatives Committee on Public Works*, 92d Cong., 1st Sess. 320 (1971) (statement of Hon. William Ruckelshaus, Administrator, EPA).

²⁷ See *infra* notes 133-136, 160-166 and accompanying text.

²⁸ 40 C.F.R. § 403.6 (1990).

²⁹ *Id.* at § 403.7.

³⁰ *Id.* at § 125.3.

ternal Waste Stream Rule regulations³¹ that a discharger may not use dilution in the treatment process prior to discharge into the receiving waters. It is only subsequent to the treatment process (when the effluent is discharged into the receiving waters), that EPA allows the use of dilution. EPA's use of euphemisms such as MZ and ZID to represent the statutory meaning of "dilution" does not turn the process into an acceptable treatment method.

EPA's current position is also inconsistent with the previous position it asserted in the Clean Air Act³² [hereinafter CAA] litigation, disapproving State implementation plans³³ under Section 110(f) of the Clean Air Act, 42 U.S.C. Section 1857c-5(a)(2)(A)(i), (f).³⁴ There, EPA would not approve the use of dispersal techniques in State Implementation Plans (unless the state established that it was absolutely necessary), because dispersal techniques merely diluted the emissions rather than reducing them.³⁵ Since EPA's policy is to present a consistent and unified approach to environmental protection,³⁶ the inconsistencies in its stand on the use of dilution is suspect.

DISCUSSION

A. Legislative History

Congress, overriding a Presidential veto,³⁷ amended the Act in 1987³⁸ in an effort to address what it considered to be serious problems in the achievement of the national goal of zero discharge.³⁹ One of the major problems facing the nation was the discharge of toxic pollutants in toxic amounts: "32 states cited water quality standards violations or use impairments due to

³¹ *Id.* at § 122.45(h).

³² Pub. L. No. 91-604, 84 Stat. 1676 (1970) (codified as amended at 42 U.S.C. §§ 7401-7642 (1983)).

³³ State implementation plan is a "plan which provides for implementation, maintenance, and enforcement of . . . [a national] primary [ambient air] standard in each air quality control region . . . within such state." 42 U.S.C. § 7410(a)(1)(1983).

³⁴ *Id.* The statutory provision mandates the use of techniques for emission reduction; the use of other measures is permitted only when necessary in the sense that emission reduction techniques are unavailable or infeasible.

³⁵ See *infra* notes 140-150 and accompanying text.

³⁶ See *infra* note 139 and accompanying text.

³⁷ Water Quality Act of 1987, Pub. L. No. 100-4, 101 Stat. 7, 89-90 (1988).

³⁸ *Id.*

³⁹ See *supra* note 17 and accompanying text.

toxic pollutants.”⁴⁰ In the 1972 amendments to the CWA⁴¹ Congress established the national policy that “the discharge of toxic pollutants in toxic amounts be prohibited.”⁴² Clearly that national policy is not being followed when EPA allows the use of a MZ, ZID or both. Such use further prevents the national goal of zero-discharge from being attained.

The legislation contained in the 1987 amendments seeks to bring the nation closer to both goals of zero discharge and eliminating discharge of toxic pollutants in toxic amounts.⁴³ These amendments require the States and the EPA to identify toxic hot spots⁴⁴ and develop individual ICSs to eliminate the discharge of toxic pollutants in toxic amounts so that water quality standards and effluent limitations in the receiving waters can be met.

Congress gave the States and the EPA specific instructions as to the information required in identifying the toxic hotspots. Each state and EPA were to identify all waters within that state that would not meet water quality standards or objectives after application of the Act’s technology-based requirements.⁴⁵ Each state must then categorize the identified waters on three progressively more comprehensive lists:

1. waters that will not meet water quality standards “due entirely or substantially to discharges from point sources of any toxic pollutants listed pursuant to Section 307(a)[of the CWA].”⁴⁶
2. waters that will not meet water quality standards “due to toxic pollutants.”⁴⁷
3. waters that will not “assure protection of public health, public water supplies”⁴⁸

⁴⁰ S. REP. NO. 50, 99th Cong., 1st Sess. 3 (1985).

⁴¹ The CWA was then known as the Federal Water Pollution Control Act; the 1977 Amendments changed the name of the Act to the Clean Water Act.

⁴² 33 U.S.C. § 1251(a)(3)(1986).

⁴³ Elimination of discharge of pollutants into the navigable waters (zero discharge) and a ban on the discharge of toxic pollutants in toxic amounts into navigable waters.

⁴⁴ 33 U.S.C. § 1314(J), 1986 & Supp. I 1990). Toxic hot spots are those areas originally identified by environmental groups and the EPA, and eventually the states, where traditional methods of control have been unsuccessful in reducing, preventing or eliminating pollution. *See also* Westvaco Corp. v. U.S. E.P.A., 899 F.2d 1383, 1385 (4th Cir. 1990).

⁴⁵ 33 U.S.C. § 1314(J)(1986 & Supp. I 1990).

⁴⁶ 33 U.S.C. § 1314(J)(1)(B)(1986 & Supp. I 1990).

⁴⁷ *Id.* at § 1314(J)(1)(A)(i). (This test, unlike the first, includes waters impaired by both point and nonpoint sources of toxics and toxics not yet tested under Section 304(a) of the Clean Water Act).

⁴⁸ *Id.* at § 1314(J)(1)(A)(ii).

Once these lists have been developed, the state must then determine the specific point sources discharging any toxic pollutant "which is believed to be preventing or impairing such water quality and the amount of each such toxic pollutant discharged by each source",⁴⁹ and establish "an individual control strategy . . . to produce a reduction in the discharge of toxic pollutants from point sources . . . through the establishment of effluent limitations . . . and water quality standards . . ., which reduction is sufficient, in combination with existing controls on point and nonpoint sources of pollution, to achieve the applicable water quality standard as soon as possible, but not later than 3 years after the date of the establishment of such strategy."⁵⁰

The ICS, in the form of a final NPDES permit, or a draft NPDES permit with an attached schedule indicating that the permit will be issued on or before February 4, 1990, was to be submitted to the EPA for its approval.⁵¹ If approved, the state was to enforce the water quality standards and effluent limitations through the normal NPDES program. If EPA disapproved of the ICS, it had the responsibility to develop appropriate ICS for the state.⁵²

B. State Compliance with Section 304(l)

A state, in compliance with Section 304(l) of CWA, would develop its lists of affected water bodies, point sources contributing to the toxic pollutants' problem and the proposed ICSs, and submit the packet to the EPA for its approval. The EPA, in turn, would indicate in a published notice, that the ICS were available for review and comment, for a period of 120 days, at which time the EPA would make a final decision on its approval or disapproval.⁵³ Any appeal of EPA's final decision was to be made within 120 days to the United States Court of Appeals.⁵⁴ The basis for the appeal would be "on claims that the Agency's finding under section 304(l) is in error; this means reviewing

⁴⁹ *Id.* at § 1314(l)(1)(C).

⁵⁰ *Id.* at § 1314(l)(1)(D).

⁵¹ 40 C.F.R. § 123.46(c)(1989).

⁵² 33 U.S.C. § 1314(l)(3)(1986 & Supp. I 1990).

⁵³ 54 Fed. Reg. 23,868 (1989). *See also* 55 Fed. Reg. 22,748, Fed. Reg. 26,201 (1990)(to be codified at 40 C.F.R. § 123).

⁵⁴ *See supra* notes 5-10 and accompanying text.

EPA's determination that the limitations will be sufficient to satisfy the requirements of that section."⁵⁵

C. *The Use and Definition of MZ and ZID*

EPA does not define MZs or ZIDs other than in marine and ocean discharges.⁵⁶ In its regulations it provides that "(s)tates may, at their discretion, include in their State standards, policies generally affecting their application and implementation, such as mixing zones Such policies are subject to EPA review and approval."⁵⁷ EPA does provide some guidance and definitions in its *Water Quality Standards Handbook* (1983)⁵⁸ and its *Technical Support Document for Water Quality-Based Toxics Control* (1985).⁵⁹ The *Water Quality Standards Handbook* defines a MZ as "an 'allocated impact zone' where numeric water quality criteria can be exceeded as long as acutely toxic conditions are prevented."⁶⁰ Acutely toxic conditions "refers to aquatic life lethality caused by passage through the mixing zone by migrating fish moving up- or downstream, or by less mobile forms drifting through a plume."⁶¹ No definition of a ZID is provided in the *Water Quality Standards Handbook* except for a reference to the fact that a united MZ serves "as a zone of initial dilution"⁶²

The Water Quality Standards Handbook provides guidelines on the location, shape, size and outfall design of a MZ⁶³ and cautions against using a MZ when a pollutant being discharged is "bioaccumulative, persistent, carcinogenic, mutagenic, or teratogenic."⁶⁴ In addition, the potential for aquatic life to be

⁵⁵ 55 Fed. Reg. 22,748, 26,201 (1990)(to be codified at 40 C.F.R. § 123)..

⁵⁶ 33 U.S.C. § 1311(h)(1986 & Supp. I 1990). See also 40 C.F.R. § 125.58, 125.121, and 230.3.

⁵⁷ 40 C.F.R. § 131.13 (1983)..

⁵⁸ Environmental Protection Agency *Water Quality Standards Handbook* (1983) [hereinafter *Handbook*]. It was issued by the EPA as guidance to assist states in implementing the revised Water Quality Standards Regulation issued 48 Fed. Reg. 51400, November 8, 1983.

⁵⁹ Environmental Protection Agency, *Technical Support Document for Water Quality-Based Toxics Control* (1985) [hereinafter *TSD*]. The *TSD* was issued in 1985 to provide technical guidance for regulating the discharge of toxic pollutants in support of the policy instructions set out in the *Water Quality Standards Handbook*.

⁶⁰ *Handbook*, *supra* note 58, at 2-7.

⁶¹ *Id.* at 2-8.

⁶² *Id.* at 2-7.

⁶³ *Id.* at 2-8.

⁶⁴ *Id.* at 2-7.

attracted to the ZID or MZ or to the outfall structure itself should be considered by the state in determining if a MZ and or ZID should be allowed.⁶⁵

The *Technical Support Document for Water Quality-Based Toxics Control* [hereinafter *TSD*] provides a more technical approach to evaluating the use of MZ, including design information and evaluations of computer modeling programs. In the *TSD*, the EPA suggests two possible ways to avoid acutely toxic conditions in a MZ.⁶⁶ The first is to prohibit lethal concentrations at the end-of-the-pipe and the second is "to use high rate diffusers and to ensure that the criterion maximum concentration [hereinafter "CMC"] is met within a short distance from the outfall."⁶⁷ The CMC is the equivalent of acute toxicity below which "lethality or acute effects are [prevented] in all but a small percentage of the tested species."⁶⁸ That area where the CMC is exceeded is commonly referred to as the ZID.

Defending its position, the EPA claims that the use of high velocity diffusers will "provide turbulent initial mixing and will minimize organism exposure time."⁶⁹ In other words, the EPA assumes that even though the area will be acutely toxic to aquatic life, no harm will result because the aquatic life will be repelled by the turbulence surrounding the outfall. Regardless of whether aquatic life will be protected by the repulsive effect of the turbulence, the use of a MZ and ZID creates an area of water that is both acutely and chronically toxic, where no such area previously existed.

Design criteria for the outfall is provided in the *TSD* as follows:

1. The CMC must be met within 10 percent of the distance from the edge of the outfall structure to the edge of the regulatory mixing zone in any spatial direction.
2. The CMC must be met within a distance of fifty (50) times the discharge length scale in any spatial direction This restriction will ensure a dilution factor of at least 10 within this distance under all possible circumstances

⁶⁵ *Id.*

⁶⁶ *TSD*, *supra* note 59, at 67.

⁶⁷ *Id.* at 67.

⁶⁸ *Id.* at 65.

⁶⁹ *Id.*

3. The CMC must be met within a distance of five (5) times the local water depth in any horizontal direction from any discharge outlet⁷⁰

The EPA is in the process of updating its *TSD*⁷¹ but continues to promote the use of MZs and ZIDs for toxic pollutant control. The EPA notes throughout the Draft *TSD* document that MZ science is inexact and fraught with variables and inconsistencies, yet the agency uses those very problems as a justification for allowing the combined use of MZs and ZIDs.⁷²

Arguably, a MZ or ZID may be a necessary exception from water quality requirements for historical (pre-1972) dischargers⁷³ provided that such exceptions are recognized as temporary, to be phased out as waste load reduction (pollution prevention) and treatment improvements (technology forcing) is phased in.⁷⁴ But there appears to be no legal authority to authorize new MZs or new ZIDs for dischargers except for narrow authorization into marine waters.⁷⁵ By implication this specific authorization reflects Congressional intent in 1987 to reinforce its prohibition against MZ into other waters.⁷⁶ New MZs and new ZIDs defeat the goals of pollution prevention and technology-forcing that must be retained to meet the zero-discharge goal.

Two references to MZs are found in the legislative histories of the Clean Water Act and its amendments. The first is found in the record of a hearing before the Committee on Public Works, House of Representatives. Representative Abzug asked then EPA administrator, Hon. William Ruckelshaus, "I want to know if there will ever be sufficient precision to enable us to abandon the concept of mixing zones Will we ever avoid the use of fresh waters for waste treatment process as is included

⁷⁰ *Id.* at 68.

⁷¹ Comments on the Draft *TSD* were due July 16, 1990. The EPA has yet to respond to those comments and issue a final *TSD*.

⁷² "Use of Mixing Zone is an approximate and subject to potential error when depicting the real world." *Id.* at 55.

⁷³ See generally Hall, *The Control of Toxic Pollutants Under the Federal Water Pollution Control Act Amendments of 1972*, 63 IOWA LAW REV. 609 (1978).

⁷⁴ "The use of mixing zones is nowhere authorized by the [Federal Water Pollution Control Act] and, in fact, the concept of mixing zones is in conflict with the FWPCA's goal of no discharge. In addition, the FWPCA's legislative history points out that the Conferees specifically banned 'pollution dilution as an alternative to waste treatment.'" *Id.* at 628 n.109; see also *infra* notes 87-88 and accompanying text.

⁷⁵ 33 U.S.C. § 1311(h)(1986 & Supp. I 1990).

⁷⁶ See *infra* notes 77-84 and accompanying text.

in the assimilative concept?"⁷⁷ In answering, Mr. Ruckelshaus referred to the no-discharge goal as a technological one that would not be achievable because the EPA was not able to relate effluents to ambient water quality standards with any precision.⁷⁸ In responding, Representative Abzug referred to the goal of zero-discharge: "[t]he argument is a very serious one for the reason that you have not been able to demonstrate anything but essentially a statement that you want water quality control and water quality standards. You have really not—you said, 'Give us some time; we will figure out another way,' but you have not been able to tell us how you will eliminate the mixing of zones and so on and so forth."⁷⁹

The other reference to MZs is as follows: "[t]he fact that mixing zones have been permitted so is [sic] indication of the information gap."⁸⁰ Congress clearly answered the question of when MZs would be prohibited by rejecting EPA's comments and establishing a zero-discharge goal,⁸¹ setting a national policy of no toxic pollutants to be discharged in toxic amounts,⁸² changing the basis of the Act from water quality standards to effluent limitations⁸³ and making a finding that "[t]he use of any river, lake, stream or ocean as a waste treatment system is unacceptable."⁸⁴

Congress has spoken and the EPA has the obligation and duty to provide regulations and guidance that are reflective of Congress' goals, objectives and mandates. By allowing states the unfettered option of approving new MZs, the EPA has acted contrary to Congress' wishes.

Case law on MZs is sparse and has never addressed the legality of a MZ to protect water quality. A petitioner in *Miners' Advocacy Council v. State of Alaska, Department of Environ-*

⁷⁷ Water Pollution Control Legislation: Hearings on H.R. 11896 and H.R. 11895, Before the *House of Representatives* Committee on Public Works, 92d Cong., 1st Sess. 320 (1971) (statement of Hon. William Ruckelshaus, Administrator, EPA) [hereinafter 'Hearings on H.R. 11896 and H.R. 11895'].

⁷⁸ *Id.*

⁷⁹ *Id.* at 321.

⁸⁰ S. REP. NO. 414, 92d Cong., 2d Sess., reprinted in 1972 U.S. CODE CONG. & ADMIN. NEWS, 3668, 3721 [hereinafter S. REP. NO. 414].

⁸¹ 33 U.S.C. § 1251(a)(1986 & Supp. I 1990).

⁸² *Id.* at § 1251(a)(3).

⁸³ See *supra* note 26 and accompanying text.

⁸⁴ S. REP. NO. 414, *supra* note 78, at 3674.

mental Control,⁸⁵ commented in its brief that “[w]hile not conceding that the use of a mixing zone is legal, we do not raise this argument here.”⁸⁶ Additionally, the court in *Hercules, Inc. v. Environmental Protection Agency*,⁸⁷ noted that: “The use of mixing zones is a controversial one. One leading commentator on Section 307(a) argued that the 1972 Act ‘probably does not allow mixing zones at all,’ since Congress banned pollution dilution as an alternative to waste treatment.”⁸⁸

In *Marathon Oil Co. v. Environmental Protection Agency*,⁸⁹ the court attempted “to explain briefly the crucial notion of mixing zones.”

Environmental agencies do - and under present technology, must - permit polluted effluents to be discharged into natural bodies of water. By definition, the effluent itself does not meet water quality standards; otherwise, it would not be considered polluted. But the receiving water dilutes the effluent, and this dilution increases as the plume of effluent gradually diffuses in the receiving water. The “mixing zone” is simply the area of dispersal in the receiving waters where the pollutants in the effluent are not sufficiently diluted to meet water quality standards.⁹⁰

The court failed to note that the CWA is based on technology-forcing concepts to encourage dischargers to develop the necessary technology to adequately treat their waste waters prior to discharge.⁹¹ This is the precise problem that Section 304(l) is attempting to address.⁹²

No court has decided whether the use of the MZ and ZIDs to attain water quality standards and effluent limitations is legal

⁸⁵ 778 P.2d 1126 (Alaska 1989).

⁸⁶ *Id.* at 1139, n. 18.

⁸⁷ 598 F.2d 91 (D.C. Cir. 1978).

⁸⁸ *Id.* at 116 (quoting K. Hall, *The Control of Toxic Pollutants Under the Federal Water Pollution Control Act Amendment of 1972*, 63 IOWA L. REV. 609, 628 n.109 (1978)).

⁸⁹ 830 F.2d 1346 (5th Cir. 1987).

⁹⁰ *Id.* at 1349.

⁹¹ “The Administrator will have the capability and the mandate to press technology and economics to achieve those levels of effluent reduction which he believes to be practicable in the first instance and attainable in the second.” S. REP. NO. 414, 92d Cong., 1st Sess., reprinted in U.S. CODE CONG. & ADMIN. NEWS 3668, 3709. See also *State of Oklahoma v. E.P.A.*, 908 F.2d 595, (10th Cir. 1990) (“the Act’s legislative history reveals that Congress intended the CWA to be ‘technology-forcing.’”).

⁹² See H.R. REP. NO. 189, 99th Cong., 1st Sess. 6 (1985); S. REP. NO. 50, 99th Cong., 1st Sess. 3 (1985); H.R. CONF. REP. NO. 1004, 99th Cong., 2d Sess. 125 (1986).

under the CWA. In *Ford Motor Co. v. United States*,⁹³ the court allowed the use of flow augmentation to meet state water quality standards because at that time EPA had not promulgated any regulations or rules prohibiting flow augmentation.⁹⁴ Citing *SEC v. Chenery Corp.*,⁹⁵ the court refused to accept EPA's post hoc rationalizations for its actions because it must "judge the propriety of such action [denial of EPA approval of the use of flow augmentation] solely by the grounds invoked by the agency."⁹⁶ However, this decision does not address the question of whether the use of MZ to meet water quality standards and effluent limitations are permissible under the CWA.

D. The Clean Water Act's Goals and Objectives

The Clean Water Act begins with a declaration of its goals and policy:

The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter-

- (1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;
- (2) It is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited⁹⁷

In 1972, Senator Muskie, in presenting the Conference Committee's Report on the then proposed amendments to the Federal Water Pollution Control Act, stated in regard to the goals,

[t]hese are not merely the pious declarations that Congress so often makes in passing its laws; on the contrary, this is literally a life or death proposition for the Nation These policies . . . simply mean that streams and rivers are no longer to be considered part of the waste treatment process.⁹⁸

The EPA strongly opposed Congress' zero-discharge goal in testimony before hearings of both the United States Senate, Subcommittee on Air and Water Pollution, Committee of Public

⁹³ 567 F.2d 661 (6th Cir. 1977).

⁹⁴ *Id.* at 670.

⁹⁵ 332 U.S. 194 (1947).

⁹⁶ *Id.* at 196.

⁹⁷ 33 U.S.C. § 1251(a)(1)-(3)(1986).

⁹⁸ 118 Cong. Rec. 33,693 (1972).

Works and the House of Representatives, Committee on Public Works. As an example, then EPA Administrator, William Ruckelshaus stated in response to questioning from the Committee of Public works: "I am questioning the wisdom, not the appeal, of whether we as a Nation ought to achieve, really sure we can achieve You are promising them no discharge. That may or may not be clear water."⁹⁹

Numerous courts have reviewed Congress' goals and objectives in determining whether EPA action has been consistent with the statutory mandates or whether its action has frustrated the congressional policies underlying the statutes. The Supreme Court has declared that "Congress' intent . . . was clearly to establish an all-encompassing program of water pollution regulation;" and that the 'major purpose' of the [CWA] Amendments was "to establish a *comprehensive* long-range policy for the elimination of water pollution."¹⁰⁰

"The foremost national goal [of the CWA] enunciated by Congress is the complete elimination of the discharge of pollutants."¹⁰¹ Further, in considering the policy established in Section 1251(b) that the states had primary responsibility and the right to prevent, reduce and eliminate pollution, the court in *Sierra Club v. Union Oil Co. of California*¹⁰² stated that the "language of the Act indicates that striving for the utter abolition of pollution is an acceptable approach for the states to take."¹⁰³

Regarding the use of dilution as an alternative to treatment, "Congress has explicitly recognized that reduction of the amount of effluents - not merely their dilution or dispersion - is the goal of the CWA."¹⁰⁴ The court further stated "that the CWA's ambitious goal has not been achieved even in 1987 does not vitiate Congress's intent that it be achieved as soon as possible."¹⁰⁵

⁹⁹ Hearings on H.R. 11896 and H.R. 11895, *supra* note 77, at 322.

¹⁰⁰ *Milwaukee v. Illinois*, 451 U.S. 304, 318 (1981). (citation omitted) (emphasis in the original). See also *International Paper Co. v. Ouellette*, 479 U.S.481, 489 (1987).

¹⁰¹ *National Resources Defense Council v. United States EPA*, 822 F.2d 104, 123 (D.C. Cir. 1987) (referring to 33 U.S.C. § 1251(a)(1)(1986). See also 33 U.S.C. § 1251(a)(3)(1986).

¹⁰² 813 F.2d 1480 (9th Cir. 1987), *vacated*, 485 U.S. 931 (1988) in light of *Gwaltney of Smithfield Ltd. v. Chesapeake Bay Found., Inc.*, 484 U.S. 49 (1987).

¹⁰³ *Sierra Club*, 813 F.2d at 1489.

¹⁰⁴ *Texas Mun. Power Agency v. Adm'r of United States E.P.A.*, 836 F.2d 1482, 1488 (5th Cir. 1988).

¹⁰⁵ *Id.* at 1489.

Congress sought to make the CWA's goals and policies clear in light of the opposition expressed by the EPA as to its wisdom and attainability. Congress employed the words "restore and maintain" in its mandate¹⁰⁶ to indicate that polluted waters were to be improved and pollution to be prevented in previously unpolluted waters in recognition of the anti-degradation policy:¹⁰⁷

attainment and maintenance of clean water will not be achieved if it is permitted to be degraded without compelling and overriding reasons

Section 303(c)(2) provides that state standards must "protect the public health or welfare, enhance the quality of water and serve the purposes of this Act." . . . This provision is consistent with the anti-degradation policy, which requires maintenance of high quality water and with the overall purpose of the Act-to restore and maintain the integrity of our waters.¹⁰⁸

The Conference Committee preparing the Conference Report for the 1972 amendments specifically rejected the term "abating or reducing pollution" and replaced it with the term "preventing, reducing or eliminating pollution" in Section 102(a) of the CWA.¹⁰⁹ This change strengthened the Congressional mandate to the EPA administrator to prepare and develop comprehensive programs for water pollution.

Clearly, Congress intends that water pollution should be eliminated as soon as possible and that the overriding goal of zero-discharge be attained.¹¹⁰ The EPA's approval of the use of MZ and ZID to allegedly meet Section 304(f) requirements, where the MZ and ZID creates a pocket of acutely and chronically toxic water in a previously unpolluted body of water, is antithetical to these goals, objectives and mandates.¹¹¹ By euphemistically referring to the dilution in the receiving waters as MZ and ZID, the EPA hopes to avoid the "dilution as a solution to pollution" ban.¹¹²

¹⁰⁶ 33 U.S.C. § 1251(a)(1986).

¹⁰⁷ 40 C.F.R. § 131.12 (1983).

¹⁰⁸ S. REP. NO. 50, 99th Cong., 1st Sess. 5 (1985).

¹⁰⁹ H.R. CONF. REP. NO. 1236, 92d. Cong., 2d Sess. *reprinted in* 1972 U.S. CODE CONG. & ADMIN. NEWS, 3668, 3778.

¹¹⁰ 33 U.S.C. § 1251(a)(1986).

¹¹¹ See *supra* notes 97-105 and accompanying text.

¹¹² See *supra* note 104 and *infra* notes 154-166 and accompanying text.

A court must give deference to an agency's interpretation of the statute, but when the agency's interpretation is inconsistent with the stated goals, objectives and underlying policies of the statute, as is the case here, deference may no longer be afforded.¹¹³ The EPA's approval of MZ or ZID is clearly inconsistent with the Congressional mandate and a court should find the EPA's interpretation of Section 304(l) "reduction" requirement as permitting dilution to be contrary to what Congress intended.

E. The Meaning of the Term "Reduction"

Section 1314(l)(1)(C) of the CWA¹¹⁴ requires that the states and the EPA determine the *amount* of toxic pollutants being discharged from the specific point sources which are identified as preventing the listed navigable waters from meeting the required water quality standards and effluent limitations. It then requires in Section 1314(l)(1)(D)¹¹⁵ that the states and the EPA develop an ICS that will "produce a reduction in the discharge of toxic pollutants from [those] point sources [identified in Section 1314(l)(1)(C)]."¹¹⁶ From the language and structure of Section 1314(1), it is clear that Congress intended that a logical "sequence" be followed in addressing the toxic pollution problem. The steps laid out by Congress are as follows:

1. Determine the water bodies affected by toxic pollution.
2. Determine the sources of the water pollution.
3. Determine the amount of each toxic pollutant being discharged by a specific source.
4. Develop a plan to reduce the amount of each toxic pollutant being discharged by a specific source.¹¹⁷

The Conference Report for the Water Quality Act of 1987 indicates that the "States are required to undertake a progressive program of toxic pollutant load reduction where [best available technology] BAT is not sufficient to meet State water quality standards and support public health and water quality objectives

¹¹³ *Chevron U.S.A. Inc. v. NRDC, Inc.*, 467 U.S. 837 (1984).

¹¹⁴ 33 U.S.C. § 1314(l)(1)(C)(1987).

¹¹⁵ 33 U.S.C. § 1314(l)(1)(D)(1987).

¹¹⁶ *Id.*

¹¹⁷ 33 U.S.C. § 1314(1)(1987).

of the Act.”¹¹⁸ Simply diluting the concentration of a toxic pollutant would not qualify as a progression since the same amount of toxic pollutant is being discharged into the receiving waters. Further, relating Section 304(1) to the “water quality objectives of the Act” clearly indicates that Congress intended the states and the EPA to consider the zero-discharge mandate,¹¹⁹ the prohibition on discharging “toxic pollutants in toxic amounts,”¹²⁰ and the “responsibilities and rights of the States to prevent, reduce, and eliminate pollution,”¹²¹ in developing the ICSs.

In addition to Congress’ obvious intent to use Section 304(1) to achieve a reduction in the amount of toxic pollutants being discharged into polluted bodies of water, Congress’ statements on toxic pollution and its then proposed amendments to the CWA are an indication of its desire that Section 304(1) reduce and eliminate toxic hot spots. The Senate referred to the toxic pollution problem as a “new, more subtle problem.”¹²²

In the 1972 amendments to the Clean Water Act, Congress recognized the pervasiveness of toxics when it set as national policy that toxic discharges in toxic amounts be prohibited. The legislation reported by the Committee brings us closer to that goal by . . . the establishment of a “beyond-BAT” program which will require direct dischargers to install more stringent cleanup technology if the best available technology [BAT] requirements set by EPA are not sufficient to meet State water quality standards because of toxic pollutants.¹²³

In describing the 1987 amendments, Senator DeConcini stated that the bill “tightens controls on toxic discharges in areas where traditional methods of control have not been successful.”¹²⁴ Senator Moynihan, in the floor debate on the 1987 amendments to the Clean Water Act, submitted the following information for the legislative record:

There are two primary approaches to controlling water pollution under the Clean Water Act. The first is to measure the

¹¹⁸ H.R. CONF. REP. NO. 1004, 99th Cong., 2d Sess. 128 (1986) [hereinafter H.R. CONF. REP. NO. 1004].

¹¹⁹ 33 U.S.C. § 1251(a)(1)(1986).

¹²⁰ *Id.* § 1251(a)(3).

¹²¹ *Id.* § 1251(b).

¹²² S. REP. NO. 50, 99th Cong., 1st Sess. 3 (1985).

¹²³ *Id.*

¹²⁴ 133 CONG. REC. S 1014 (Jan. 21, 1987).

quality of water into which pollutants are being released, to determine which industries are responsible for the pollution and to require those parties to reduce their discharges by the amount needed to make the water at least "fishable and swimmable." The second is simply to require all industries to reduce their discharges to a predetermined level, based on the best pollution control that is economically achievable. The latter, "best available technology" (BAT) standards has been the exclusive method of regulation thus far, due to the technical difficulty of water-quality based permitting.

However, it has become clear that in certain areas, the water may remain unacceptably contaminated with toxic pollutants even after all the industries have applied BAT.

The conference report requires EPA to develop guidelines for use by states in identifying those areas. . . .

States then would have another two years to develop individual control strategies "to further limit pollution from point sources. . . ." ¹²⁵

The Conference Report indicates:

States must identify those water bodies . . . which will not meet State water quality standards because of toxic pollutants after the implementation of BAT, new source performance standards and pretreatment standards The State's proposed reduction in toxic discharges, in combination with other controls . . . must achieve the applicable water quality standard as soon as possible ¹²⁶

Similarly, the House indicated that ICSs were to be developed and implemented "to achieve compliance with applicable water quality standards where it is determined that such compliance will not result from the application of best available technology and best conventional technology." ¹²⁷

In floor debates on the CWA amendments, Representative Roe State that "[t]he bill also contains a provision establishing a procedure for the EPA to address the problem of toxic hot spots EPA will require pollution controls beyond those associated with installation of best available technology, to reduce and eliminate these toxic hot spots." ¹²⁸

¹²⁵ *Id.* at S 1029 (emphasis added).

¹²⁶ H.R. Conf. Rep. No. 1004, *supra* note 116 at 129.

¹²⁷ H. REP. No. 189, 99th Cong., 1st Sess. 6 (1985).

¹²⁸ 133 CONG. REC. H 174 (Jan. 3, 1987).

Obviously Congress intended that the discharge of toxic pollutants into receiving waters was to be reduced and eliminated, even if additional controls were required to achieve that goal. The practice of allowing a discharger to use the receiving waters' dilutional capacity does not "tighten controls on toxic discharges";¹²⁹ does not comprise "pollution controls beyond . . . BAT"¹³⁰ or "more stringent cleanup technology";¹³¹ nor does it "further limit pollution."¹³²

Since neither Congress nor the EPA has defined the word "reduction" as having any special meaning, the plain meaning rule requires the term to be construed in the manner used.¹³³ The contemporaneous construction of the term by the EPA indicates that the agency equates "reduction" with "removal" and "pretreatment": "Removal means a reduction in the amount of a pollutant in the POTW's effluent or alteration of the nature of a pollutant during treatment at the POTW Removal as used in this subpart shall not mean dilution of a pollutant in the POTW."¹³⁴ "Pretreatment means the reduction of the amount of pollutants, the diminution of the pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW."¹³⁵ In addition, the EPA prohibits the use of dilution as a substitute for treatment: "No Industrial User shall ever increase the use of process water, or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with a Pretreatment Standard or Requirement."¹³⁶

The Courts have routinely recognized the term "reduction" as requiring the removal or a decrease of pollutants in the effluent.¹³⁷ "Congress explicitly recognized that reduction of the

¹²⁹ See *supra* note 124 and accompanying text.

¹³⁰ See *supra* notes 123, 125, 127-128 and accompanying text.

¹³¹ See *supra* note 123 and accompanying text.

¹³² See *supra* note 125 and accompanying text.

¹³³ *Watt v. Alaska*, 451 U.S. 259, 265 (1981) ("[T]he starting point in every case involving construction of a statute is the language itself. [The plain meaning rule] . . . is 'rather an axiom of experience than a rule of law and does not preclude consideration of persuasive evidence if it exists.'" (Citations omitted)).

¹³⁴ 40 C.F.R. Section 403.7(a)(1990).

¹³⁵ *Id.* at § 403.3(q).

¹³⁶ *Id.* at § 403.6(d).

¹³⁷ See *Texas Mun. Power Agency v. Adm'r of EPA*, 836 F.2d 1482 (5th Cir. 1988); *National Ass'n of Metal Finishers v. EPA*, 719 F.2d 624, 651 n.38 (3rd Cir.

amount of effluents - not merely their dilution or dispersion - is the goal of the CWA."¹³⁸

In testimony before the Subcommittee on Air and Water Pollution, Committee on Public Works, on March 15, 1971, regarding the then-proposed Senate amendments to the Federal Water Pollution Control Act, William D. Ruckelshaus, then Administrator of the Environmental Protection Agency, stated:

We have closely studied the provisions of the Clean Air Act, as amended last year, and have endeavored, to the extent appropriate, to make the terminology and the administrative and regulatory approaches of our own proposals consistent with that act. This is in accord with the concept underlying the establishment of EPA-a consistent and unified approach to environmental problems.¹³⁹

With EPA's attempt to maintain consistency with terms between the two acts, court cases interpreting "reduction" under the Clean Air Act are appropriate in construing the term as used in the CWA. *In NRDC v. U.S. E.P.A.*,¹⁴⁰ the court recognized that the Clean Air Act "intends a policy of nondegradation" ¹⁴¹

This "tall stack" approach represents a form of "dispersion enhancement technique" . . . [which] are techniques to reduce concentrations of pollutants not by reducing the quantities of pollutants emitted into the air . . . but rather by increasing the dispersion of pollutants throughout the atmosphere. The use of dispersion techniques is at odds with the nondegradation policy.¹⁴²

In Big Rivers Electric Corp. v. E.P.A.,¹⁴³ the court stated that "[the] national policy is to reduce air pollution."¹⁴⁴ The

1983), *rev'd on other grounds sub nom. Chemical Mfgs. Ass'n v. NRDC*, 470 U.S. 116, 125 (1985) (discussing Congress' rejection of dilution as treatment for pollution); *Hercules, Inc. v. EPA*, 598 F.2d 91, 108 n.30 (D.C. Cir. 1978).

¹³⁸ *Texas Mun. Power Agency v. Adm'r of EPA*, 836 F.2d at 1488.

¹³⁹ Hearings on S. Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, U.S. Senate, 92d Cong., 1st Sess. 4 (1977)(statement of Hon. William Ruckelshaus, Administrator, EPA).

¹⁴⁰ 507 F.2d 905 (9th Cir. 1974).

¹⁴¹ *Id.* at 913.

¹⁴² *Id.*

¹⁴³ 523 F.2d 16 (6th Cir. 1975).

¹⁴⁴ *Id.* at 22.

court quotes *NRDC v. E.P.A.*¹⁴⁵ for authority that emission limitations in a state plan are regulations of the composition of pollutants emitted into the ambient air. The *Big Rivers* court then defined composition as the "kind and amounts of its constituents."¹⁴⁶ The court in *Big Rivers* would not permit the approval of a State Implementation Plan "which might be construed to permit a source of pollutant emissions to continue operating . . . without the application of one or more systems which control the 'kind and amounts' of its air contaminant emissions" because of the conflict with the nondegradation policy.¹⁴⁷

Finding intermittent controls similar to "tall stacks," the court in *Kennecott Copper Corp. v. Train*,¹⁴⁸ indicated that they "may only disperse the pollutant rather than reduce it Neither assures a reduction in the quantity of the pollutant eventually emitted."¹⁴⁹ In refuting Kennecott's argument "that use of a tall stack reduces ground level concentration or "dilutes" the pollutant and therefore is not inconsistent with a policy of nondegradation of air quality," the court stated that the argument "ignores the undeniable fact that a tall stack does nothing to reduce emissions because it introduces all of the pollutant into the atmosphere."¹⁵⁰

Congress' use of the term "reduction" in the Section 304(1) language¹⁵¹ and the sequence¹⁵² set out for the states and the EPA to implement the paragraph, logically leads to the conclusion that a reduction in the amount of toxic pollutants was the desired result. This position is fortified by the references cited in the legislative histories for the 1972 and 1987 amendments.¹⁵³ Further, since neither Congress nor the EPA gave a special meaning to the term "reduction," contemporaneous construc-

¹⁴⁵ 489 F.2d 390 (5th Cir. 1974), *rev'd on other issues sub nom*, *Train v. NRDC, Inc.*, 421 U.S.60 (1975). 142(A) *Big Rivers*, 523 F.2d at 21.

¹⁴⁶ *Big Rivers*, 523 F.2d at 21.

¹⁴⁷ *Id.* at 22.

¹⁴⁸ 526 F.2d 1149 (9th Cir. 1975).

¹⁴⁹ *Id.* at 1155.

¹⁵⁰ *Id.* at 1154 n.20. The CWA's antidegradation policy would require a similar holding since a MZ and or a ZID do "nothing to reduce" pollutants "because [they] introduce all of the pollutant into the" receiving waters. See *supra* notes 107, 142 and accompanying text.

¹⁵¹ 33 U.S.C. § 1314(J)(1)(C)(1988).

¹⁵² See *supra* note 117 and accompanying text.

¹⁵³ See *supra* note 118-132 and accompanying text.

tion of the term by Congress, the EPA and the courts, both in CWA and Clean Air Act litigation, supports the conclusion that "reduction" means decreasing the amount of pollutants being discharged. It follows then that the EPA's approval of the MZ and ZID to meet the requirements of Section 304(1)(1)(D), is inconsistent with the paragraph, and is contrary to the overall goals of the CWA.

F. Dilution is not the Solution

In adopting the amendments to the CWA in 1972, Congress made clear its position on the use of dilution as a solution to water pollution problems. "The Conference substitute specifically bans pollution dilution as an alternative to waste treatment."¹⁵⁴ Further, the amendments of 1972 changed the focus of the Act from determining how much pollution a receiving body of water could handle to determining how much pollution could be reduced at the source.¹⁵⁵

Water quality standards, in addition to their deficiencies in relying on the assimilative capacity of receiving waters, often cannot be translated into effluent limitations . . . because of the imprecision of models for water quality and the effects of effluents in most waters.

Under this Act the basis of pollution prevention and elimination will be the application of effluent limitations. Water quality will be a measure of program effectiveness and performance, not a means of elimination¹⁵⁶

In Congress' mandate to the EPA, it bans the use of streamflow regulation "as a substitute for adequate treatment or other methods of controlling waste at the source."¹⁵⁷ If the EPA desires to use streamflow regulation for water quality control it must convince Congress of the appropriateness of such action.¹⁵⁸ However the Conference Report indicates that such regulation may be implemented only in regard to non-point sources.¹⁵⁹

¹⁵⁴ H.R. Conf. Rep. No. 93-1465, 92d Cong., 2d Sess., reprinted in 1972 U.S. CODE CONG. & ADMIN. NEWS p. 3668, 3778. [Hereinafter "H.R. Conf. Rep. No. 92-1465"].

¹⁵⁵ S. REP. NO. 414, 92d Cong., 1st Sess., reprinted in 1972 U.S. CODE CONG. & ADM. NEWS, 3668, 3675.

¹⁵⁶ *Id.*

¹⁵⁷ 33 U.S.C. § 1252(b)(1)(1988).

¹⁵⁸ 33 U.S.C. § 1252(b)(3)(1988).

¹⁵⁹ H.R. Conf. Rep. No. 92-1465, 3668, 3778.

Both the EPA and the courts have consistently taken the position that dilution may not occur in the treatment process prior to discharge to the receiving waters, especially when the pollutants are toxic. An explanation for this position is provided in *Texas Mun. Power Agency v. EPA*:¹⁶⁰

At first blush, it may be unclear why dilution can be a problem. One might believe that the proper goal of a treatment system is to produce water "so clean" that pollutants are present in only immeasurably small amounts. This is usually, but not always the case. Certain pollutants are dangerous even in immeasurably small concentrations. In addition, many pollutants accumulate, rather than biodegrade, when discharged into the environment. Even if the amount of non-biodegradable wastes in each discharge is immeasurable, the long-term effects of accumulation may be significant On the problem of dilution the EPA stated when proposing these regulations: [40 C.F.R. 122.45(h) (1986) (Internal Waste Stream Rule)] There is a distinct possibility . . . that plants may be able to meet the limits for toxic organics through dilution unless the compliance point is at-the-source, rather than end-of-pipe We believe it is important that this not occur. The strong policy of the [CWA] is that pollutants be removed, not diluted¹⁶¹

In *Cerro Copper Products Co. v. Ruckelshaus*,¹⁶² the court upheld the EPA's regulations on removal credits saying: "removal credit will be granted only for the actual removal of the pollutant mass by the POTW, not for a reduction in the concentration of the pollution through dilution of the wastewater" ¹⁶³
The court further stated:

The POTW must actually remove the pollutant mass from the wastewater and removal credits are not to be granted for simple dilution, *i.e.*, increasing the volume of water and thereby decreasing the number of pollutants per unit of water. Congress, in enacting the Clean Water Act, intended above all to remove pollutants from the Nation's waters, not to dilute the pollutants by introducing them into larger bodies of water.¹⁶⁴

¹⁶⁰ 836 F.2d 1482 (5th Cir. 1988).

¹⁶¹ *Id.* at 1489, n.38.

¹⁶² 766 F.2d 1060 (7th Cir. 1985).

¹⁶³ *Id.* at 1063.

¹⁶⁴ *Id.* at 1069.

Congress has explicitly prohibited the use of dilution as a solution to a water quality problem and both the EPA and the courts have recognized Congress' position. The court in *Texas Mun. Power Agency v. EPA*¹⁶⁵ stated "[t]he strong policy of the [CWA] is that pollutants be removed, not diluted."¹⁶⁶ Therefore EPA's approval of MZ and ZID to correct a water quality problem is inconsistent with its knowledge of Congress' intent. Further such approval is contrary to the Act itself. "If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress."¹⁶⁷ "The judiciary is the final authority on issues of statutory construction and must reject administrative constructions that are contrary to clear congressional intent."¹⁶⁸

Congress' intent is clear: dilution may not be used as a solution. The EPA has recognized that position in the past.¹⁶⁹ When an agency changes its mind or reverses its established interpretation of a statute, the deference to be paid to that new position is lessened absent adequate data and a reasoned analysis to support the change. The court in *NRDC v. E.P.A.*¹⁷⁰ recited instances where the EPA has spoken out against the use of dilution to meet effluent limitations and water quality standards in several of its regulations. It follows then that the agency's approval of the use of MZ and ZID is contrary to the congressional intent, and is inconsistent with its prior positions on the use of dilution to meet water quality standards and effluent limitations.

CONCLUSION

The long-term practical effect of the EPA's approval of the ICS using dilution to meet water quality standards and effluent limitations is that the authority to require the best available treatment and to implement pollution prevention programs is

¹⁶⁵ 836 F.2d 1482 (5th Cir. 1988).

¹⁶⁶ *Id.* at 1490, n.38 (quoting 48 Fed. Reg. 7056 (1983)).

¹⁶⁷ *Chevron v. NRDC, Inc.*, 467 U.S. 837, 842 (1984).

¹⁶⁸ *Id.* at 843, n.9. See also *State of Oklahoma v. EPA*, 908 F.2d 595, 599 (10th Cir. 1990); *NRDC v. U.S. E.P.A.*, 790 F.2d 289, 297 (3rd Cir. 1986).

¹⁶⁹ See BAT requirements, 40 C.F.R. § 125.3(t); Pretreatment Requirements, 40 C.F.R. § 403.6(d); Removal Credits, 40 C.F.R. § 403.7(axi); and Internal Waste Stream Rule, 40 C.F.R. § 122.45(h).

¹⁷⁰ 790 F.2d 289 (3rd Cir. 1986) *cert. denied*, 479 U.S. 1084.

significantly impaired. States must now compete with each other to offer the greatest discretion to increase end-of-pipe concentrations. States with coastlines and large lake resources are under economic development pressure to allow new MZ and new ZIDs into these water bodies. More than any other single thing approved by the EPA, the use of MZ and ZID defeats the goal of clean water within the United States.

Since EPA continues to approve and encourage the use of MZs and ZIDs to meet water quality standards and effluent limitations, either the courts or Congress must take affirmative action to clearly establish that the CWA prohibits such use. Until the EPA's position is corrected, the goal of zero-discharge will never be met and the agency can continue to ignore the Congressional mandate by using euphemisms to disguise its actions.

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