

Impact of the 1977 Clean Water Act Amendments on Industrial Dischargers

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Outline

Introduction.....	1
What Happens if the 1977 Requirements Were Not Met?.....	2
For a Direct Discharger.....	2
The April 1, 1979, Extension.....	2
Nonqualifying Cases-ECSLs and the "Reasonable Time" Enforcement Order.....	4
For a Discharger Planning to Tie Into a Municipal Treatment System.....	5
Extension of the 1977 Requirements.....	5
Enforcement Orders for Tie-Ins Up to 1983.....	7
Revision of Best Available Technology Requirements.....	7
An Overview.....	7
Conventional Pollutants.....	8
Toxic Pollutants.....	9
Nonconventional Pollutants.....	11
Application of New Standards in Reissuance of Permits.....	12
Variances and Extensions.....	12
Modification of BAT Requirements for Nonconventional Pollutants.....	12
Installation of Innovative Technology.....	13
Other Important New Provisions.....	13
Best Management Practices.....	13
Pretreatment.....	14
Industrial Cost Recovery.....	15
Appendix A: Summary of Clean Water Act Provisions for Extension of Deadlines, Delayed Compliance and Modification of Requirements.....	16
Appendix B: List of 65 Toxic Pollutants.....	17
Footnotes.....	18

Introduction

On December 28, 1977, President Carter signed into law the Clean Water Act of 1977.⁴ This statute comprehensively amends the Federal Water Pollution Control Act as amended in 1972. The amendments comprise an array of numerous changes covering the breadth of the statute and making significant changes in the requirements for control of industrial discharges, for construction of municipal sewage treatment plants, for management of nonpoint source pollution problems, for protection of wetlands, and for other related concerns.

The purpose of this Monograph is to focus on the major changes of importance to industrial plants discharging directly into navigable waters and those planning to tie into municipal systems.

The real significance of many changes made by the Amendments will be defined only after a period of some time. Often the statutory language is imprecise, and the actual effect of the new law will not be resolved until EPA has issued implementing regulations, or perhaps not until those regulations have undergone judicial review. In highlighting the major changes, the Monograph in several instances indicates issues raised by the Amendments. It attempts also to provide background to put these changes into perspective, and in some cases adds suggestions on what may be likely developments as program implementation proceeds.

The most important changes made by the 1977 Amendments include the following: For companies having not achieved compliance with the 1977 requirements Congress has provided limited extensions of the deadline. In the case of plants discharging directly to the navigable waters, the maximum extension is 21 months, or to April 1, 1979.

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This limitation means that many plants will not be able to qualify for the extension. This raises critical questions about EPA enforcement policy, particularly in regard to its issuing of Enforcement Compliance Schedule Letters (ECLs).² For companies planning to tie into municipal systems, extensions are authorized up to as late as July 1, 1983, under certain specified conditions.

The Amendments substantially revise the standards for "Phase Two" best available technology control, previously scheduled for completion by July 1, 1983. They extend that deadline to July 1, 1984, and they modify the requirements for control of conventional pollutants in a manner that may greatly reduce the costs to industry which the original best available technology standards would have imposed. At the same time, the Amendments increase the emphasis on control of toxic pollutants, directing EPA to develop BAT effluent guidelines covering all of the 21 industries and 65 pollutants identified in the *Natural Resources Defense Council v. Train* 1976 consent decree entered into by EPA.³ The Amendments also establish a new category of "nonconventional" pollutants, for which the deadlines for control may extend as late as July 1, 1987.

All of the new standards must be applied through issuance of individual discharge permits, and it clearly is open to question whether the standards themselves will have been promulgated in time for use in reissuing permits as they expire during 1978 and 1979. Consequently many companies may receive an extension of their existing permits, thus postponing the schedule for capital investment required to achieve tighter levels of control.

The amended statute permits variances from the requirements for control of nonconventional pollutants under specified conditions. It also allows an extension of the deadline for achieving all BAT requirements for plants installing certain types of innovative technology.

The Amendments also expand the regulatory framework by authorizing EPA to issue "best management practices" regulations to control certain parts of plant operations to restrict the runoff of toxic and hazardous materials. Provisions for noncompliance fees, widely debated during the legislative process, were not included in the Amendments as finally enacted.

The Amendments modify the pretreatment requirements to provide dischargers credit for any removal of toxic pollutants by the municipal sewage treatment plant. They also continue EPA in a strategy toward

pretreatment which faces numerous practical problems, with the result that actual implementation of pretreatment requirements is likely to lag far behind the imposition of ever tighter controls on direct dischargers. As a consequence of this prospect, and of other changes made by the Amendments, there may be some instances where companies previously planning to install their own controls may wish to reconsider the advantages of tying into a municipal system, although they may have to obtain the approval of EPA (in the form of an enforcement order) to make such a change in their plans.

Individual plants will be affected by different parts of the package of Amendments, and this Monograph is organized to enable readers to turn directly to the parts of particular interest to them. In addition, because the number of deadline extensions and variance provisions embodied in the Amendments is quite confusing, a brief description of each of these is provided in *Appendix A*.

What Happens if the 1977 Requirements Were Not Met?

For a Direct Discharger

The April 1, 1979 Extension: The most pressing problem confronting some industrial plants under the Federal Water Pollution Control Act is that they have not yet complied fully with the requirements to install "best practicable control technology" ("BPT") (including more stringent control if needed to meet receiving water quality standards) by the deadline of July 1 1977.

The number of plants which missed that deadline frequently has been estimated at no more than 10 percent of all dischargers, but the group includes many large and important facilities whose pollution equals more than the percentage suggests.

The principal relief Congress has provided for industries missing the 1977 deadline is an authorization for the Administrator of EPA to extend the BPT deadlines on a case-by-case basis up to April 1, 1979, subject to various conditions. The 1977 deadline for achieving compliance with water quality standards may not, however, be extended under this authority. This provision is in Section 309(a)(5)(B) of the Federal Water Pollution Control Act as amended. This authority will cover many of the cases where plants were late in completing their basic pollution control construction programs, but the requirement that full compliance be achieved by April 1, 1979, will preclude the granting of such extensions to many plants that will be unable to meet that deadline. (See discussion below.)

This provision for extensions may provide relief also in many other cases where the basic abatement program was completed by July 1, 1977, but where the actual discharges since then repeatedly have exceeded the numerical limitations in the company's discharge permit. In such cases, companies perhaps will be allowed to use the additional time to install further controls to bring the discharges lower than targets. To obtain the extensions, however, a company presumably would have to comply with condition four (stated below) by developing a supplementary construction program for needed facilities and by actually commencing construction on such facilities. Whether EPA will grant any extensions in this type of case, however, is an open question

These time extensions are at the discretion of the EPA Administrator—Congress neither provided a general relaxation of the BPT compliance period nor stipulated conditions creating a "right" to a BPT modification.

The Administrator is *not* empowered to grant modifications to a class or category of point sources through general rulemaking. Modifications may occur only in the context of specific actions, and both the necessity for and duration of an extension must be founded on the unique circumstances confronting a particular discharger. Also, it is unclear whether the Administrator can delegate authority to grant such extensions to states administering the National Pollutant Discharge Elimination System water pollution permit program.

If the Administrator is convinced that an industry shortly will achieve BPT standards, EPA may extend the 1977 deadline "to a date which will achieve compliance at the earliest time possible but not later than April 1, 1979." This provision is intended to avoid labeling as violators those industries which "for reasons beyond their control"⁴ were unable to complete the installation of necessary pollution control equipment by July 1, 1977.

Before granting such an extension, however, the Administrator must determine that: (1) the person out of compliance has acted in good faith and has made a commitment of necessary resources to achieve compliance by the earliest possible date after July 1, 1977, but not later than April 1, 1979; (2) any extension will not lead to the requiring of additional controls on any other point or nonpoint source; (3) an application for an NPDES permit was filed before December 31, 1974; and (4) the facilities necessary for compliance are under construction.

The Amendments specify that the necessary commitment of resources be "in the form of contracts or other securities." The conference report stresses that the commitment be "serious," and it directs the Administrator to determine whether "purchase orders were executed, land cleared, and engineers and construction workers available, or other steps taken to insure that the job can be completed by the new extended date."⁵

Two particular situations in which the EPA Administrator should provide a time extension are discussed in the conference report.⁶

The first involves an industry which "planned on, negotiated with, and conducted joint engineering studies with" a municipality planning to construct a publicly owned treatment works ("POTW") but then later decided not to rely upon the POTW.

The second situation involves industries which received innovative technology grants under Section 105(c) of the Act, but where the grantee was unable to perfect the novel technology and had to resort instead to conventional pollution abatement equipment. The narrowness of these examples might encourage EPA to take a restrictive approach in granting extensions, although there doubtless are numerous other situations where an equally compelling justification for relief may exist.

In contrast to most of the other extensions authorized by the 1977 Amendments' the statute does not specify a requirement that the discharger must apply for the extension. Moreover, there is no guidance available from EPA on whether such applications are required or on the form they should take.

Nor has EPA established procedures to govern such applications or criteria to indicate the grounds on which such extensions will be either granted or denied' although the agency has been considering policy questions. It is, in fact, likely that the significance of this authority to grant extensions will be partially lost in the time consumed to set up the mechanics to administer it. Of the 21 months covered by the allowed extension, several months have elapsed already, and it is quite possible that the entire 21 months will have expired before individual determinations are made in all the cases where such an extension arguably might apply.

Despite these administrative difficulties, the extension authority will provide an important buffer in the enforcement process during the period before April 1, 1979, in cases where a company can persuade EPA (or presumably an NPDES state) that it has

been attempting in good faith to achieve compliance. Companies with basic construction programs scheduled for completion during this

interim and those still in the process of fine-tuning equipment previously installed should prepare for requesting an extension. This preparation should include documentation of the efforts made by the company, pinpointing reasons for its failure to achieve full compliance by July 1, 1977. After the documentation has been prepared, an individual judgment should be made on whether the company should take the initiative in requesting that an extension be granted (which normally would be the safest course for a company to take) or whether the company might rely safely on informal communications to EPA that is making good faith efforts and defer filing a formal request for an extension.

Nonqualifying Cases—ECSLs and the "Reasonable Time" Enforcement Order: In many situations in which the 1977 requirements have not been achieved, conditions to grant an extension cannot be satisfied. These situations include the three following important categories.

- (1) Cases in which discharge permits have been issued accompanied by Enforcement Compliance Schedule Letters ("ECLs") recognizing that the abatement facilities would not be installed until some date later than April 1, 1979;
- (2) Cases in which adjudicatory hearings on initial permits remain unfinished and in which it is obvious now that the abatement programs cannot be completed before April 1, 1979;⁷ and
- (3) Cases in which permits were issued and accepted requiring completion of the abatement programs before July 1, 1977, or at least before April 1, 1979, but in which companies have encountered problems and resulting delay despite good faith efforts, and the companies must seek additional time to achieve full compliance.

These three cases all assume a degree of good faith on the part of the discharger, making inappropriate any imposition of enforcement penalties. (Cases in which dischargers simply have failed to meet the deadlines through lack of diligence doubtless will be subject to the full range of enforcement measures.)

Questions arise as to what relief EPA may give to such cases of legitimate delay. In particular, one

question not directly answered by the Amendments is what effect they have on the EPA policy of issuing enforcement compliance schedule letters approving final compliance dates later than April 1, 1979.

It seems unlikely that the Amendments will cause EPA in effect to disown the ECSLs previously issued, even when they extend beyond the April 1, 1979, date. In this regard, House/Senate conferees said in the Conference Report that.

It is the intent of the conferees that under the provision which allows the Administrator to establish a reasonable time in which to comply with an enforcement order, existing administrative and court orders which provide attainment dates beyond April 1, 1979, continue in effect unless modified under these Amendments. Therefore, the existing enforcement policy of the EPA is continued.⁸

Although this language refers to enforcement orders and does not cover ECSLs as such, it does recognize that additional delay will occur in some abatement programs and provides a degree of general endorsement for EPA's previous enforcement actions. Moreover, it can strongly be argued that the ECSLs represent a moral commitment by EPA which should not be disregarded, because the Amendments certainly do not compel such a result. It is a possibility, however, that EPA might attempt to ratchet down the time schedule for completing abatement programs (which seems improbable) or to impose financial penalties where the ECSL extends well beyond April 1, 1979.

It is also unlikely, however, that additional ECSLs will be issued. The implication of the Amendments seems to be that Congress has authorized extensions of the 1977 deadlines up to April 1, 1979, but no further. Statements by top EPA enforcement officials indicate that this approach is certainly their interpretation of the Amendments and that they do not plan to issue more ECSLs.

Two options remain for dealing with cases of delay beyond April 1, 1979. One is the issuance of an enforcement order under Section 309; the other is issuance of a consent decree or other form of court order.

From the company's viewpoint, both of these alternatives entail the drawback that the plant remains labeled a violator even after a timetable for compliance has been issued. Thus the imposition of fines or penalties would be legally permissible, and the possibility remains that citizen suits could impose

punitive measures even if the government agencies decline to do so. Imposition of penalties certainly is not mandatory, however, and in a case of unavoidable delay despite good-faith efforts, issuance of an enforcement order specifying a timetable for achieving compliance later than April 1, 1979, without imposition of penalties probably will be the most satisfactory course from the viewpoint of both EPA and a company.

It is possible, however, that EPA may impose penalties in all cases in which achievement of compliance extends beyond April 1, 1979, without regard to the question of good faith.*

Congress has cleared the path for issuance of enforcement orders in such cases by amending Section 309(a)(5)(A) to enable enforcement orders to specify a "reasonable" time for achieving compliance. Previously, that section required compliance to be achieved under any enforcement order within 30 days.

*In this regard, James W. Moorman, assistant attorney general in the Land and Natural Resources Division of the Justice Department, told an American Law Institute-American Bar Association environmental law meeting February 10: "Many companies and municipalities have not been good soldiers about pollution control. There is still substantial resistance to compliance in some quarters. This resistance takes two forms. The first form is actually nothing more than foot dragging of various kinds, often associated with attempts to obtain narrow interpretations of the law from the courts. Much of the noncompliance can be attributed to the difficulties of corporations, private and municipal, in organizing themselves for compliance and in making the necessary commitments required to meet deadlines in a timely fashion. Many failures to comply have simply been the result of stumbling or ignorance. For this category of noncompliance, EPA and Justice have sought, and will continue to seek, civil remedies from the courts in the form of monetary penalties and injunctions.

"There is a second form of resistance, however, which involves more deplorable conduct: willful, substantial violations of the pollution control laws of a criminal nature. For these transgressions, the Department of Justice has begun to invoke grand jury investigations both against corporations and against individuals. The Department will prosecute criminal conduct in this area."

In addition at the time this Monograph was being written, EPA was preparing a civil penalties policy to calculate economic advantages gained by a discharger's delayed compliance with federal water and air pollution control regulations. A draft of that policy, reported in Environment Reporter— Current Developments on December 9, 1977, at page 1173, says, "It is an important enforcement . . . to eliminate, throughout the country, economic gain obtained by violating pollution control requirements and where appropriate, to impose additional economic sanctions as well."

That restriction obviously was unworkable in cases where major abatement programs were required, and

EPA enforcement orders in fact often spelled out programs running much longer than 30 days despite the statutory provision.

Thus the Amendment might be regarded as merely a technical change of little practical significance. It is, however, described as a significant change in both the Senate Report⁹ and the Conference Report, its significance lying in the fact that enforcement orders provide an approved means of dealing with cases where achievement of compliance will be delayed beyond April 1, 1979.

In such cases, the imposition of penalties accompanying an enforcement order is far more likely than where an ECOL already has been issued, because EPA officials do not regard the enforcement order as a vehicle simply to extend the 1977 deadline.

Finally, it should be noted that in cases where plants expect to tie into municipal treatment systems, Congress has specifically authorized an extension of the 1977 deadlines to as late as July 1, 1983, under certain conditions or an enforcement order specifying compliance by no later than July 1, 1983, under other conditions. Such cases are discussed in further detail below.

For a Discharger Planning to Tie Into a Municipal Treatment System

Extension of 1977 Requirements: Many industrial plants currently discharging their wastes directly into navigable waters have planned to comply with water pollution control requirements by tying into a municipal treatment system.

Commonly the existing publicly owned treatment works ("POTWs") are at full capacity or overloaded and are unable to receive the industrial wastes until after constructing additional treatment facilities, which have not yet been completed at least partly because of a lack of federal financial assistance.

The industrial plants therefore are continuing to discharge into navigable waters, and since they have not installed their own treatment facilities, they currently violate the general requirements to achieve best practicable technology and comply with water quality standards by July 1, 1977. To protect those industries against prosecution for delays "primarily the fault of the federal government,"¹⁰ Congress amended Section 301 to empower the EPA Administration to extend 1977 compliance deadlines

on a case-by-case basis to as late as July 1, 1983, if a corresponding extension has been granted, as also authorized under the new Section 301(i)(1), to the

POTW which the industrial plant is depending on to treat its wastes.

In authorizing these extensions, Congress reiterated its support for the Act's cost effectiveness objective of encouraging:

. . . industries to send wastes of the type that could be treated by local municipal sewage treatment plants to those plants for treatment, thereby avoiding duplication and expense. To be consistent with that purpose, the committee intends that non-municipal sources which are firmly committed to tie-in with a municipal treatment plant not be forced to build duplicative treatment facilities pending the completion of the sewage treatment plant.¹¹

Under the new Section 301(i)(2), an industry is eligible for a time extension if it can demonstrate that it was committed to discharging to a POTW prior to POTW will be operational and available to the in July 1, 1977. That demonstration must take the form of *one* of the following:

- (4) Receipt of an NPDES permit based on discharge into a POTW;
- (5) Entry into an enforceable contract to discharge into a POTW;
- (6) Inclusion in a POTW's federal construction grant application; or
- (7) Inclusion in the engineering or architectural plans or working drawings for a POTW.

No extension is available where the POTW can accommodate the industrial user's discharges without new construction or where an existing POTW's inability to achieve Section 301 secondary treatment or water quality standards results from factors other than unforeseeable construction delays or failure to receive timely federal financial assistance.

Grant of a Section 301(i)(2) time extension must be reflected either in the modification or issuance of an NPDES permit. *To obtain an extension, the industrial user must file a request* either by June 26, 1978, or within 180 days of the POTW's application for an extension under Section 301(i)(1), whichever date is later. Because the POTW is itself limited to a 180-day filing period, starting with enactment of the Clean Water Act of 1977, *the latest possible filing date for an industry is December 22, 1978.* If the industry proposed to discharge into an existing POTW,

approval of the POTW's extension request is a prerequisite to approval of the industry's application

Upon receiving a Section 301 (i) (2) request, the Administrator (or the Administrator's state counterpart in states which administer the NPDES permit program) must determine whether the industry has acted in good faith.³² The Administrator may impose pretreatment standards, interim effluent limitations, and/or water conservation measures as a condition to granting a request. Moreover, the industry's NPDES permit must require it to meet all Section 307 requirements for control of toxic discharges and pretreatment during the extension period. It should be noted that a Section 301(i)(2) extension applies only to the 1977 requirement and does *not* affect the requirements to install BAT or BCT controls as called for by the 1984 deadline.

A time extension is available only if the receiving POTW will be operated and available to the industry by July 1, 1983, and will meet secondary treatment and applicable water quality standards.

If it appears that the POTW will *not* be online by then or will function inadequately, the industry must install its own pollution abatement equipment. Because such an industry's discharges likely will violate BPT and water quality standards until its control equipment becomes operational, it will be subject to federal prosecution under Section 309.

Section 301(i)(2) also requires an enforceable contract between the discharger and the POTW which guarantees that the POTW will treat the industry's wastewaters. This "enforceable contract" criterion imposes a stringent deadline, for it requires that the discharger and the POTW "have entered into" an agreement prior to the grant of a time extension.

The statute appears ambiguous, however, on whether the enforceable contract must have been entered into at the time an application for extension is filed or merely at the later date when the extension is actually granted. Presumably, the creation of an enforceable contract at any time before the extension is actually granted would satisfy the statutory language. Until EPA issues its interpretation, however, industries should be careful to avoid filing their applications for an extension if they have not yet executed a contract. In some cases, urgent efforts to complete the execution of an enforceable contract and the filing of a timely application for an extension may be required.

Enforcement Orders for Tie-ins Up to 1983: The Amendments also contain special provision for

enforcement orders in cases where the conditions for issuance of an extension up to 1983 are not met but where a current discharger is expected to tie into a POTW.

Under Section 309(a)(6), the Administrator may issue an enforcement order directing an industrial plant to discharge its wastes into a POTW at the earliest date practicable, but not later than July 1, 1983. Such an order may be issued only after findings that the industry in fact has violated the 1977 BPT or water quality standard requirements under Section 301(b), that the time extension of Section 301(i)(2) (discussed above) is unavailable to the discharger, and that the "most expeditious and appropriate means of compliance" is discharge into a POTW. Issuance of such an order is dependent also on a prior request by the discharger and the concurrence of the POTW.

The requirements for prior consent by the affected parties make this an unusual type of enforcement order. Moreover, it might be suggested that this special provision in Section 309(a)(6) was unnecessary because under Section 305(a)(5) the Administrator already had been granted authority to issue enforcement orders specifying a "reasonable" time for achieving compliance; however, without the specific congressional extension to 1983, it could have been argued that the reasonable time authority would not include allowing a company to wait until 1983 for a POTW to be completed if the company could complete its own abatement program substantially sooner.

In any event, Section 309(a)(6) clearly does provide explicit congressional endorsement for allowing companies to wait for a POTW to be completed and then to tie into it even if they cannot qualify for the extension under Section 301(i)(2). This could include situations where a company had not committed itself by July 1, 1977, to have the POTW handle its wastes. Similarly, this provision could also apply to situations in which a company has not made that decision to tie into a municipal system. In any cases in which a company still is straddling this fence, it may wish to consider the effect of the Amendments in modifying statutory provisions on pretreatment and industrial cost recovery. Those provisions are discussed below.

Revision of Best Available Technology Requirements

An Overview

Section 301 (b)(2)(A) of the Federal Water Pollution Control Act set July 1, 1983, as the latest date for industries to apply the "best available technology economically achievable" ("BAT").

While developing the effluent guidelines defining the best practicable technology standards to be required of industry by the 1977 deadline, EPA also developed and promulgated regulations containing BAT effluent guidelines for many industrial categories. The achievement of these stringent BAT levels of control by all industrial dischargers by 1983 was set forth in the 1972 Act as the second phase of the national industrial pollution control effort.

During legislative consideration on proposed mid-course corrections, industry contended strongly that the application of BAT requirements regardless of water quality needs would entail enormous costs without comparable benefits. Congress responded by substantially revising the 1983 requirements, significantly relaxing the provisions for control of conventional pollutants (BOD, suspended solids, pH, fecal coliform) while placing greater emphasis on controls of toxic pollutants.

The Amendments replaced the uniform requirement for achievement of BAT by 1983 with a three pronged approach toward tighter control of pollution. The new law now divides the pollutants which might be discharged by a single plant into three categories and applies differing requirements to each category of pollutants, as follows:

"Conventional" Pollutants: These will include such substances as biological oxygen demand, suspended solids, fecal coliform, and pH, the exact list to be identified by EPA.

The conventional pollutants are subject to an entirely new standard of control, "best conventional pollutant control technology" ("BCT"). The agency is to compare the cost of previously established BAT standards with the cost of municipal treatment. If BAT costs are less than or equal to the costs of equivalent removal in POTWs, then the existing BAT standards may become the best conventional technology. In other cases, the stringency of BCT standards may become the best conventional technology. In other cases, the stringency of BCT standards would be expected to fall somewhere between the BPT and BAT standards previously established. The deadline for achieving this level of control is not later than July 1, 1983, deadline for achieving BAT under the 1972 Act.

Toxic Pollutants: Industries must achieve BAT requirements for control of "toxic" pollutants by a deadline of not later than July 1, 1984.

The pollutants designated as toxic will include the 65 toxic pollutants identified in the consent decree which

settled a suit brought by NRDC against EPA, which includes the pollutants which EPA had designated as toxic under Section 307 of the 1972 Act. The Administrator may add to or delete from that list of 65 toxic pollutants, and EPA has said it plans some additions but does not now anticipate deletions.

For all listed toxic pollutants, EPA will be required to promulgate effluent limitations setting BAT levels of control. In addition, EPA will have the option of issuing more stringent toxic standards to apply to all discharges of selected substances.

"Nonconventional" Pollutants: All other pollutants which are not specifically identified as either conventional or toxic fall into this third category.

EPA is required to issue effluent guidelines establishing BAT limitations for these substances, and industry must achieve these levels of control within three years after an effluent limitation is established, or by July 1, 1984, whichever is later, but compliance must occur by July 1, 1987.

It should be noted that the requirements set forth above comprise a package of technology-based standards to be required of all industrial dischargers as part of the Phase II effort to be completed by 1984. These requirements apply to all dischargers regardless of the condition of receiving waters at the location of individual plants.

In addition, the 1972 Act imposed further requirements which are tied to the condition of receiving waters. Section 302 of the Act required that even more stringent limitations be imposed on any plant where necessary to assure the "protection and propagation of a balanced population of shellfish, fish, and wildlife and allow recreational activities in and on the water," (the so-called "fishable-swimmable standard"), subject to an exception where a company could show that those controls would impose costs having "no reasonable relationship" to the benefits to be obtained. These water quality requirements were not amended by the 1977 Clean Water Act (though the exception was narrowed), and they remain in effect along with the technology-based requirements which were revised.

It should be noted also that the BAT and BCT effluent limitations are to be issued by EPA as uniform standards designed to cover an entire industrial category and that such standards will be translated into actual abatement requirements for individual plants through the process of issuing permits specially written for each plant.

The relationship between the statutory provisions for establishment of industry-wide limitations and the

provisions for issuance of permits raises a number of practical problems which must be considered to understand the direct effect which the statutory changes may have on individual plants. First, however, the provisions controlling the standards themselves must be examined.

Conventional Pollutants

Amended Section 304(a) requires the EPA Administrator by March 27, 1978, to publish a list identifying the "conventional" pollutants and authorizes the Administrator thereafter to revise the list.

The statute specifies that the list shall include BOD, suspended solids, fecal coliform, and pH. The statute further specifies that the list shall not include heat, which therefore remains subject to the BAT requirements except as they may be modified under Section 316. It is questionable whether any significant number of additional pollutants will be included in the conventional pollutants category.

New Section 304(b)(4) specifies the criteria EPA must follow in setting the BCT effluent limitations. These criteria closely resemble those followed by EPA in setting the BPT and BAT guidelines which it has already issued. In determining what constitutes BCT, however, the Administrator must consider both the "reasonableness of the relationship between the costs of obtaining a reduction in effluents and the effluent reduction benefits derived" and also a "comparison of the costs and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources."¹³

In other words, EPA now must not only evaluate the benefits to be derived from achieving a given level of additional pollution control and compare them to the costs of such control; it also must compare the costs of achieving such reductions in pollution from industrial plants to the costs for comparable reductions at municipal treatment plants.

The precise manner in which these comparisons are to be made is completely unclear, as there are many different possible methods by which the incremental costs might be measured.

It is unclear also what relationships between the costs of controlling industrial pollution and costs of controlling municipal pollution are acceptable as a basis for promulgation of the new BCT guidelines. Determination of the basic groundrules for developing these standards therefore will present a critical task for EPA. In view of the enormous economic

importance of these determinations, and also the inherent complexity of the issues, these decisions on basic groundrules doubtless will be highly controversial (and presumably will require court decisions ultimately to resolve).

One result of the statutory change from a BAT to a BCT standard for conventional pollutants is that the status of all previously issued BAT effluent guidelines is uncertain. In anticipating action by EPA to resolve that uncertainty, and also in measuring the importance of this change, one should recognize that the various industrial categories fall into two basic groups.

One group includes the 21 industries for which EPA currently is developing BAT toxic standards (see below). Some of their discharges contain heavy volumes of toxic substances, control of which may be extremely expensive.

The other group contains industries whose principal discharges are organic wastes. The levels of control required for their conventional pollutants therefore will dominate the total costs of their pollution control programs. This group includes the dairy, meat packing, sugar, grain milling, fruit and vegetable, and seafood industries.

In each of the 21 industries, EPA plans to develop a total package of effluent guidelines including the BAT requirements for toxic pollutants, the BCT requirements for conventional pollutants, and certain requirements covering nonconventional pollutants. The development and promulgation of these standards is scheduled to proceed over an established schedule during 1978 and 1979.

For industries not covered by the toxics program, the statute directs EPA to complete a review of existing guidelines by March 27, 1978, and determine whether the guidelines previously issued as BAT effluent limitations need to be revised to conform to the BCT criteria.

For those industries where a revision of standards is required, the revisions are expected to be completed by the end of 1978. There may be slippage, however, in meeting both the March 22, 1978, deadline and the schedule for completing standards review. Moreover, as these issues are faced, substantial controversy seems likely.

Many in industry understand the BCT standard to represent a significantly less stringent level of control than that indicated by BAT. In fact, adoption of these more relaxed requirements for treatment of

conventional pollutants was generally regarded as the most important step taken by Congress to reduce the total costs to industry called for under the 1972 Act.

There is some opinion within EPA, however, that data currently available indicate that the costs of achieving present BAT standards in several industries are comparable to the costs of controlling conventional pollutants in municipal secondary treatment plants. This conclusion might lead EPA to make no changes in a number of the current BAT standards other than to redesignate them as BCT. Decisions by EPA on these matters therefore will have critical importance.

Toxic Pollutants

The thrust of the 1977 Amendments is to shift the emphasis of water pollution control efforts toward a greater focus on toxic pollutants. The Amendments also significantly revise the basic approach toward control of toxics.

For perspective, it should be remembered that the 1972 Act, as it has been implemented, has focused relatively little attention on toxic pollutants. The principal objectives have been to upgrade levels of control of conventional pollutants, with the hope that reductions in the discharges of heavy metals and chemical compounds would occur as a result of controls installed to meet tighter standards on discharges of such familiar parameters as BOD and suspended solids.

Although EPA's first round of effluent guidelines, taken altogether, set limitations on more than 60 different parameters, most of the guidelines dealt only with six or eight of the traditional parameters.

Likewise, the vast majority of permits issued by EPA and state agencies actually set numerical limitations on only a similar handful of parameters.

The 1977 Amendments reflect a clear intent that future pollution control efforts will be extended to apply numerical limitations directly to toxic pollutants. To do this, the pollution program will have to move up to a far higher level of sophistication and complexity.

The approach of the 1972 Act to toxic substances was embodied in Section 307(a). That section directed EPA to identify by regulation individual toxic substances and to develop toxic standards which would set a uniform limitation on discharges of a particular substance by all plants in all industries.

The 1972 Act further provided that all plants must achieve compliance with those toxic standards within a year after the standards were promulgated. This approach was a failure for several reasons. The one-

year deadline was totally unrealistic. The procedures prescribed by Section 307 for issuance of standards required EPA to conduct adjudicatory hearings which dragged on interminably. Moreover, the basic idea of attempting to set a single standard which would be sufficiently stringent to protect against any environmental damage but feasible for achievement by all plants regardless of their size of nature was inherently difficult, if not impossible.

In 1976 the focus of EPA efforts toward control of toxic pollutants shifted toward an approach of using the technology-based standards to require as much control of toxic pollutants as technologically feasible by including toxic substances in the BAT standards to be issued for individual industries. A consent order issued in the case of *NRDC v. Train* (generally known as the "Flannery decision") committed EPA to a schedule for developing BAT effluent limitations for 21 major industries covering 65 recognized toxic substances. The 65 substances have subsequently been subdivided by EPA to provide a total of 129 specific substances. (See *Appendix B*).

The 1977 Amendments carry forward both the approach of the original Section 307(a) (with significant modifications) and also the approach of the Flannery settlement, but the dominant emphasis clearly will be upon the Flannery settlement approach. The statute (Sections 301(b)(2)(A) and (C); 304(b)(2); 307(a) (2)) actually incorporates the basic terms of the settlement, and it requires EPA to complete the promulgation of BAT guidelines covering the 21 industries by July 1, 1980 (six months after the December 31, 1979, final date set by the Flannery settlement).

The Administrator will also retain the discretionary authority to regulate toxic substances under the revised Section 307. The Amendments have facilitated use of the Section 307 approach by eliminating the requirement for a full formal hearing before promulgating such standards and also by permitting the Administrator to set more realistic deadlines for industry to achieve compliance with such standards—up to three years after their promulgation.

Limited future use of the section may be expected. It does offer EPA a means to deal with a specific pollutant through one rulemaking that becomes applicable to all industrial dischargers. The inherent difficulty of resolving complex questions about providing adequate environmental protection and assuring technological feasibility in a single across-the-board decision, however, would suggest that this approach will not be used frequently.

Moreover, EPA will have its hands full attempting to promulgate the BAT guidelines required by Section 304. The basic concept of the effluent guidelines approach presents the advantage that it provides for a thorough examination of the quantities of pollutants discharged by specific industries and the levels of control that can be achieved at what cost.

The practical difficulties of applying that approach on a broad scale, however, are enormous. Far less is known about both the toxic pollutants themselves and the technologies for controlling them than was known in regard to the conventional pollutants in 1972 when EPA began to develop the BPT effluent guidelines. EPA now has greater experience, staff, and funding than it had in the first round, but the scope of the job is also vastly greater.

It remains an open question whether EPA will be able to complete the promulgation of these toxic BAT effluent guidelines on roughly the schedule set by the Flannery court order and the statute or whether it will fall considerably behind that schedule.

In this context, it becomes important to consider the development of guidelines in regard to individual industries. Experience suggests that if problems do develop in meeting the schedule, a large gap can develop between completion of the first guidelines and completion of those which are at the end of the schedule. The basic schedule that EPA is now committed to, under the Flannery settlement, is to publish effluent guidelines in individual industries as follows:

Group 1 (September 30, 1978 [proposed],
March 31, 1979 [final]).

Timber Products
Steam Electric Power Plants
Leather Tanning & Finishing
Iron & Steel Manufacturing
Petroleum Refining

Group 2 (December 31, 1979 [proposed]; June
30, 1979 [final]).

Nonferrous Metals Manufacturing
Paving & Roofing Materials (Tars and Asphalt)
Paint & Ink Formulation and Printing
Ore Mining & Dressing
Coal Mining

Group 3 (March 31, 1979 [proposed] September
30, 1979 [final]).

Organic Chemicals Manufacturing

Inorganic Chemicals Manufacturing
Textile Mills
Plastics & Synthetic Materials Manufacturing
Pulp & Paperboard Products
Rubber Processing

Group 4 (June 30, 1979 [proposed]; December 31, 1979 [final]).

Soaps & Detergent Manufacturing
Auto & Other Laundries (Industrial Laundries)
Miscellaneous Chemicals
 Pesticide Manufacturing
 Photographic Products
 Gums & Woods (Glue Making)
 Pharmaceuticals
 Explosives
 Adhesives & Sealants
Machinery & Mechanical Products Manufacturing
 Battery Manufacturing
 Plastics Manufacturing
 Foundries
 Coil Coatings
 Porcelain & Enameling
 Aluminum
 Copper
 Electronics
 Shipbuilding
 Mechanical Products (Metal Fabrication)
Electroplating

It should be noted that this schedule is pertinent not only for completion of the toxic guidelines but also for the conventional pollutant guidelines, because EPA is planning to develop a package of guidelines covering all applicable pollutants for specific industries. Following this approach, any delays in completing the toxic guidelines presumably would cause corresponding delays in promulgation of the guidelines on conventional pollutants.

Nonconventional Pollutants

This catch-basin category is likely to end up containing far more pollutants than either of the other categories, but in its significance toward the development of pollution control requirements it will be much less important.

In order for a substance to be classified as either a conventional pollutant or a toxic pollutant it must be specifically listed as such by the Administrator, with the consequent commitment by EPA to issue effluent limitations covering that pollutant for each industry where it is significant. Although the pollutants so listed undoubtedly will encompass the vast majority of recognized pollution problems, there nevertheless will remain hundreds of other substances which have not

been placed on either list and thus will fall into the category of nonconventional pollutants.

These are likely to include a number of familiar substances such as aluminum, iron, chlorine, ammonia, fluoride, phosphate, nitrate, chemical oxygen demand, and color. They will include also a host of esoteric substances, many of which may be quite toxic but which will not be listed as "toxic" because of EPA's inability to develop BAT effluent guidelines for them in the foreseeable future.

The statute contemplates that EPA will issue BAT effluent guidelines for all nonconventional pollutants, and it sets the deadline for their abatement as three years after such effluent guidelines have been promulgated (though not later than July 1, 1987).

As a practical matter, EPA can develop effluent guidelines for these pollutants in one of two ways. In some cases EPA may include standards for one or more nonconventional parameters in its package of BAT and BCT effluent guidelines for individual industrial categories. This approach is especially likely for the familiar substances listed above.

In other cases the standards promulgated in 1979 and 1980 will be silent on nonconventional pollutants, which then will remain unregulated until a later round of effluent guideline promulgations.

In many cases where nonconventional pollutants are not directly regulated, they nonetheless will be controlled by abatement measures required to comply with the effluent guidelines for the toxic and conventional pollutants. There may be isolated cases, however, in which large discharges of nonconventional pollutants would not be covered directly by BAT guidelines or controlled indirectly by other requirements. In such instances, which might be most likely in the chemicals industry, a plant might experience a temporary respite from full abatement requirements.

Applications of New Standards in Reissuance of Permits

All the new effluent guidelines when they are developed will have meaning only as they are applied to individual plants by issuance of NPDES permits.

The basic statutory scheme calls for all of the effluent guidelines to be promulgated by July 1, 1980, and the permits then could allow until July 1, 1984, for companies to install the controls needed to achieve compliance with the new standards. A closer look at the practicalities of this process, however, suggests a number of possible problems that might cause

substantial delays in fulfillment of the statutory scheme.

Under the 1972 Act, first-round permits were issued to most major industrial plants in 1974. Most of these permits have a term of five years and will expire during 1979.

EPA regulations currently require a discharger to submit an application for renewal of its permit six months before the expiration date to allow time for development of new permit conditions and for compliance with procedural requirements such as a public notice and a public hearing.¹⁴ It is likely, however, that when the time comes to begin rewriting the permits to meet the new standards, many new effluent guidelines will not yet be available.

EPA then will face a dilemma over whether to attempt to reissue the permits by making individual ad hoc determinations of the BAT and BCT requirements (as EPA did in 1973 and 1974 in making ad hoc determinations of BPT requirements in many cases) or to wait until the new effluent guidelines are promulgated before imposing the more stringent abatement requirements.

EPA is planning not to go forward with permit decisions one at a time. It would be far more difficult to make case-by-case determinations for toxic pollutants, because they present far more complex problems and because much less is known about them. Thus, where a permit expires and the effluent guidelines are not available as a foundation for setting the BCT and BAT requirements, the existing permit presumably will simply be extended until the guidelines become available.

This approach means that investment commitments by industries to reach higher levels of control may be postponed until significantly after the termination of their existing permits.

Much will then depend on whether or not EPA essentially meets the statutory schedule for completing the BAT toxic effluent guidelines (as well as the CT guidelines). If the guideline writing process should bog down, the result could be a postponement in the whole process of permit reissuance, at least for the affected industries. The potential for major technical or administrative problems both in the promulgation of effluent guidelines and in the reissuance of permits makes it quite possible that significant delays will occur beyond the schedule contemplated by the statute in the application of the more stringent standards.

From the viewpoint of any individual discharger, it will be of critical importance to compare the expiration date of its current permit to the scheduled or anticipated date for promulgation by EPA of effluent guidelines for its particular industry. Obviously some time (perhaps six months to a year) will elapse between promulgation of national standards and issuance of permits applying those standards to specific dischargers. These calculations will assist corporate managers in planning pollution control expenditures.

Variations and Extensions

Modification of BAT Requirements for Nonconventional Pollutants: Prior to the 1977 Amendments; the Act provided an important opportunity for industrial dischargers to seek modification of the BAT requirements.

The old Section 301(c) authorized the Administrator to grant such a request where the industry clearly demonstrated that the suggested modifications represented the "maximum use of technology within the economic capability" of the request or and that they would result in "reasonable further progress" toward eliminating polluting discharges. That authority is severely restricted by the 1977 amendments.

Since the modification authority is tied specifically to the BAT standards, and since conventional pollutants are now subject to BCT standards, no requests for modification can be made in regard to EPA effluent guidelines covering conventional pollutants. (Sections 301(c); 301(b)(2)(A) and (E)). Moreover, the new Section 301(1) specifically prohibits the modification of any BAT requirement for a listed toxic pollutant. This means that the modification opportunity is narrowed to apply only to effluent guidelines covering nonconventional pollutants. As described above, these guidelines are apt to be of only limited significance during the next round of permits to be issued in the 1978-1980 time frame.

The new Section 301(9) offers an additional means for obtaining modification of the BAT requirements, but this provision also is limited to the requirements for nonconventional pollutants (excluding heat, which is covered by Section 316 of the Water Act as amended in 1972). To obtain a modification, the petitioning industry must show that its proposed revisions will (1) "at a minimum" result in compliance with applicable BPT or water quality standards; (2) not place additional pollution abatement burdens on any other point or nonpoint source; (3) not interfere with a water quality level which assures protection of public water supplies and fish and wildlife resources and which also allows water-based recreation; and (4) not

pose an "unacceptable risk to human health or the environment." Health and environmental risks are to be evaluated in terms of the pollutant's characteristics regarding bioaccumulation, persistency, acute or chronic toxicity, and synergistic propensities.

The rationale for the Section 301(g) modification thus is tied to a demonstration that stricter controls are not needed for protection of health or water quality, whereas the rationale for a Section 301(c) modification relates to undue economic hardship on the discharger.

Where modification of a BAT standard is sought under either subsections (c) or (9), application must be made by September 23, 1978, if a Section 304 effluent guideline already exists, or no later than 270 days after any new effluent guideline is promulgated. New Section 301(j) provides that a subsection (g) application will not stay the Act's requirements unless "in the judgment of the Administrator" such a stay or the modification sought will not result in discharges which "may reasonably be anticipated to pose an unacceptable risk to human health or the environment" and where there is a "substantial likelihood" that the applicant will succeed on the merits. Any stay granted may be conditioned upon filing of a bond or other appropriate security to assure a timely compliance with discharge requirements.

Installation of Innovative Technology: Another type of extension added by the Amendments is the new Section 301(k), which permits postponement of BAT compliance until July 1, 1987, for an industry proposing either to replace existing production capacity with an innovative production process or to install an innovative control technique.

This authority may be of great importance in selective cases, although it would not relieve a company of the obligation to achieve BCT levels of control on conventional pollutants by 1984.

To qualify for a Section 301 (b) time extension, an industry's proposed system must have the "potential" for industrywide application and must fit one of the following situations:¹⁵

- (8) Replacement of existing production capacity with an innovative production process which will result in significantly greater effluent reduction than required under BAT limitations.
- (9) Installation of an innovative control technique which has a *substantial likelihood* for achieving a significantly greater effluent reduction than required by BAT.

- (10) Installation of an innovative control technique which achieves BAT and has a *potential* for significantly lower costs than the systems which the Administrator previously has determined to be economically achievable.

Where a production process or control technique is uniquely designed for a particular facility so that its transferability is limited, no compliance extension is available.

Other Important New Provisions

Best Management Practices

The Amendments add an entirely new type of regulatory authority under which EPA now may prescribe best management practices ("BMP") controlling certain aspects of plant operations.

The new Section 304(e) authorizes the Administrator to publish "supplemental" regulations for toxic or hazardous pollutants (identified under Section 307(a) or Section 311) in order to assure that an industry maintains careful environmental management practices at its operational sites. These regulations will be designed to "control plant site runoff, spillage or leaks, sludge or waste removal, and drainage from raw material storage" which are ancillary to industrial activities

The intent of this provision is to "control runoff of toxic and hazardous materials from industrial sites resulting from poor housekeeping procedures."¹⁶ Once such supplemental regulations are promulgated, the required practices are to be included in the industry's NPDES permits.

The exercise of this authority is entirely discretionary with EPA, and because this approach involves a new regulatory activity, it is quite speculative to anticipate the extent to which the authority will be exercised. Examples cited in the Senate Report¹⁷ suggest kinds of recent pollution disasters this provision is designed to correct—spillage of carbon tetrachloride into the Ohio River, mirex leakage into Lake Erie, and Kepone runoff into the James River

The intent appears to focus on abnormal situations or incidental operations, rather than to provide another crosscut at regulating the same basic industrial operations already covered by the effluent guidelines. Because EPA faces considerable man-power constraints in fulfilling mandatory tasks to promulgate effluent guidelines, it would be surprising during the

next year or two to find substantial amounts of activity in developing BMP regulations

EPA's approach toward implementing this authority first will be to amend the permit program regulations to specify that all new permits shall contain a general provision requiring the permittee to comply with any applicable BMP regulations, whether they are promulgated before or after issuance of the permit.

EPA then will attempt to develop BMP regulations as a coordinated part of its package of BAT and BCT effluent guidelines on an industry-by-industry basis. The BMP regulations, at least at the outset, however, will not be comprehensive. They will be prepared to cover special situations where significant pollution problems exist and can most appropriately be covered by an operations-style regulation.

Examples which might be considered by EPA for coverage by a BMP regulation to control toxic or hazardous pollutants might include the following: In mining, construction, or other activities which disturb the vegetative cover, a discharger might be required to install a catchbasin to prevent runoff, with specified requirements on the design of the catchbasin or sedimentation basin. At power plants, steel mills, or other industrial sites where large coal piles are common, a discharger might be required to install a tent over the coal pile to prevent rain water runoff from picking up toxic pollutants from the coal or take other measures to contain the run-off by diking, collecting, and treating it. In other raw materials storage situations (for example, log ponds or wood piles), restrictions might be imposed to limit runoff of pollution. Or where cooling towers are used, chlorination practices or other disinfectant techniques might be regulated to reduce the presence of toxics in the blowdown water.

To the extent these examples might accurately reflect current thinking within EPA, they would suggest that some industries quite likely would not be subject to any BMP regulations at this time.

In the long run, the potential for application of a BMP approach may evolve toward a more substantial element in the overall water pollution control program. It is possible, therefore, that the importance of the initial BMP regulations may lie in the precedent they set rather than in their direct impact. For the immediate future, however, the administrative and manpower limitations suggest that BMP regulations will not have broad importance during the next round of permit issuance or compliance.

Pretreatment

Section 307(b) of the 1972 Act directed EPA to issue pretreatment standards for various categories of industrial plants, restricting the discharge into municipal systems of pollutants which would interfere with, pass through, or otherwise be incompatible with the municipal treatment works.

Under this authority EPA has developed pretreatment standards for numerous industrial categories in conjunction with its development of BPT, BAT, and new source standards for those industries. It has promulgated pretreatment standards for those pollutants which would pass through or interfere with a POTW, such as heavy metals or toxic compounds, essentially mirroring the level of control over those pollutants which would be required if the industrial plant were discharging directly into navigable waters.

The Amendments alter the statutory provisions on pretreatment in several respects.

As amended, Section 307(b)(1) authorizes a POTW owner or operator to relax an industrial user's pretreatment obligations if it can be demonstrated that each of the following conditions is satisfied: (1) the POTW removes "all or any part" of the toxic substance, (2) the POTW's discharge does not violate any toxic effluent limitation or standard which the industry would have to meet if it did not utilize the POTW, and (3) treatment by the POTW does not prevent sewage sludge use of disposal in accordance with EPA regulations.

Any release from pretreatment obligations may occur only to the extent that the POTW itself removes the toxic pollutant. Thus the effect of the new provision is to provide credit to an industrial user for whatever removal of the pollutants is accomplished by the POTW, with the result that the net discharge (after treatment by both the industry and the POTW) will be at least equivalent to the discharge that would be permitted in the case of a direct discharger meeting BAT levels of control.

Introduction of toxic pollutants into a POTW in violation of pretreatment standards subjects the industrial user to federal enforcement under the new Section 309(f).

Upon finding a violation, the Administrator may so notify the POTW owner or operator. If the POTW does not commence enforcement action against the discharger within 30 days of such notification, the Administrator himself may institute a civil action in a U.S. District Court.

Such action would be against the POTW for injunctive or other appropriate relief and the toxic discharger must be joined as a party. The district court is empowered to take such action against both the POTW owner and the discharger "as may be necessary to come into compliance with this Act."

In addition, Section 402(b)(8) has been amended to require that state permit programs provide for the development and enforcement of municipal pretreatment programs.

Although the provisions for enforcement of pre treatment requirements have been strengthened, the more significant effect of the Amendments may be that they have confirmed the commitment of national pretreatment policy to an approach which faces severe practical problems, with the result that actual implementation of pretreatment requirements may well be delayed substantially.

A chief characteristic of this approach is the attempt to tie local pretreatment programs to national BAT effluent limitations established for the innumerable different categories and subcategories of industry. This approach saddles the POTWs with the burden of administering an extraordinarily complicated set of differing requirements for each type of industrial user, an almost hopeless task for municipalities in view of the limited manpower available to them for this purpose.

EPA has moved extremely slowly so far in its efforts to develop effective pretreatment programs. It proposed new regulations on January 3, 1977, to govern the development of local pretreatment programs, and the agency is currently nowhere close to promulgating those regulations. The Amendments will, if anything, complicate that task

On the basis of these practical considerations, a delay of several years is likely before effective implementation of pretreatment requirements is achieved in any significant number of municipal systems. During this delay, the levels of pollution control effectively enforced against plants discharging directly into the navigable waters unquestionably will be greatly tightened as compliance with BPT standards is closely monitored and as requirements to achieve BAT standards are imposed.

The existing discrepancy between the tight controls imposed on direct dischargers and the generally lax controls required of industries discharging to municipal systems is therefore likely to widen. For an industrial plant, the direct impact of the difference in terms of its financial costs for pollution control may be

substantial. This discrepancy therefore may represent a substantial practical incentive to industries now discharging into the navigable waters to transfer the treatment of their wastes into a POTW if they are able to do so.

Industrial Cost Recovery

As a condition to receiving federal construction grant assistance under Section 204, the 1972 Act required POTWs to enter into reimbursement agreements with industrial users.

The charges levied upon industrial users must cover the portion of the construction cost allocable to the treatment of such industrial wastes to the extent attributable to the federal grant amount. Because this industrial cost recovery ("ICR") procedure has created a number of administrative problems, Congress revised Section 204(b) and mandated an EPA study to determine whether ICR should be further altered.

Three significant and immediate changes have been made to ICR. First, the EPA Administrator may exempt an industry from ICR where its discharge into the POTW is less than 25,000 gallons per day of sanitary waste. To qualify for the exemption, the industry's effluent must not contain any toxic pollutants or any pollutant which either interferes or is incompatible with the treatment works or contaminates or reduces the utility of the POTW's sewage sludge (Section 204(b)(6)).

Second, a POTW now may institute a systemwide ICR rather than tying the recovery charge to each particular treatment facility (Section 204(b)(1)(B)). This revision gives the municipality the option to charge its industrial users either at the rate in effect at the facility into which each user actually discharges or at a systemwide rate regardless of the treatment facility used. The municipality may not, however, charge some of its industrial customers at the individual facility rate and some at a systemwide rate.

Finally, the revised ICR procedure permits the recipient of a construction grant to reduce ICR upon approval by the Administrator. Such reduction may occur only where the grantee requires the industrial user to adopt measures which reduce either its total sewage flow or its "unnecessary water consumption" (Section 204(b)(3)).

Perhaps the most important congressional action regarding ICR is the mandated EPA study scheduled for completion by the end of 1978.¹⁸ That study is to examine the efficiency of, and need for, ICR payments. In anticipation of the need to further modify ICR, Congress has imposed an 18-month moratorium

on federal enforcement of the provision of grant applications or agreements requiring ICR payments.

Although this moratorium makes unnecessary any cash disbursements by industrial users until mid 1979, the Amendments do not remove all ICR liability. Rather, if no change is made in the Federal Water Pollution Control Act by July 1979, industrial users are obligated to pay those amounts which would have

been due during the moratorium, to be paid in equal annual installments prorated over the remaining useful life of the relevant treatment works.

The effect of these changes must be evaluated in the context of each individual situation to determine whether they may present significant new advantages to a company in tying into a municipal system.

Appendix A

Summary of Clean Water Act Provisions for Extension of Deadlines, Delayed Compliance and Modification of Requirements

A. Extensions

1. April 1, 1979, Extension for Direct Dischargers: Section 309(a)(5)(B) authorizes an extension of the 1977 requirements up to April 1, 1979, to certain direct dischargers if they have acted in good faith, have made commitments to achieve compliance by April 1, 1979, and have the required facilities under construction.

2. Extension for Municipalities Up to 1983: Section 301(i)(1) authorizes an extension of the 1977 requirements to POTWs if their noncompliance was caused by unavoidable construction delays or lack of federal funds.

3. Extension for Industrial Users Up to 1983: Section 301(i)(2) authorized an extension of the 1977 requirements up to 1983 to companies planning to tie into municipal systems if they have been prevented from doing so by delays in completion of needed municipal treatment facilities caused by unavoidable construction delays or lack of federal funds.

4. Innovative Technology: Section 301(k) authorizes an extension of BAT requirements up to 1987 for dischargers installing certain types of innovative technology.

B. Enforcement Orders

1. Reasonable Time Orders: Section 309(a)(5)(A) allows EPA to issue enforcement orders providing a reasonable time after the passage of deadlines for achievement of compliance.

2. Enforcement Orders Allowing Up to 1983: Section 309(a)(6) authorizes EPA upon request by a company and a POTW, to order a company to tie into a POTW not later than 1983.

C. Waivers or Modification of Requirements

5. BAT Requirements for Nonconventional Pollutants: Section 301 (c) allows modification of BAT requirements for nonconventional pollutants upon a showing of maximum control within economic capability of the discharger.

6. BAT Requirements for Nonconventional Pollutants: Section 309(9) also authorizes a modification of BAT requirements for nonconventional pollutants upon a showing of adequate protection to receiving waters and public health.

7. Modification of Water Quality Related Requirements: Section 302(b) (1972 Act) authorizes a modification of effluent limitations established to assure [fishable/swimmable water] upon a showing of nonreasonable relationship between costs and benefits.

8. Ocean Discharges by POTWs: Section 301 (h) authorizes a modification of the secondary treatment requirement for certain POTWs with a deep ocean outfall.

9. Thermal Discharges: Section 316(a) (1972 Act) authorizes a modification of effluent limitations on thermal discharges upon a showing of no harm in the receiving water.

Appendix B
List of 65 Toxic Pollutants Pursuant to Section 307(a)(1)
of Federal Water Pollution Control Act, as Amended
(Federal Register, January 31, 1978, page 4108)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Acenaphthene 2. Acrolein 3. Acrylonitrile 4. Aldrin/Dieldrin¹ 5. Antimony and compounds² 6. Arsenic and compounds 7. Asbestos 8. Benzene 9. Benzidine¹ 10. Beryllium and compounds 11. Cadmium and compounds 12. Carbon tetrachloride 13. Chlordane (technical mixture and metabolites) 14. Chlorinated benzenes (other than dichlorobenzenes) 15. Chlorinated ethanes (including 1,2-dichloroethane, 1,1,1-trichloroethane, and hexachloroethane) 16. Chloroalkyl ethers (chloromethyl, chloroethyl, and mixed ethers) 17. Chlorinated naphthalene 18. Chlorinated phenols (other than those listed elsewhere; includes trichlorophenols and chlorinated cresols) 19. Chloroform 20. 2-chlorophenol 21. Chromium and compounds 22. Copper and compounds 23. Cyanides 24. DDT and metabolites, 25. Dichlorobenzenes (1,2-, 1,3-, and 1,4-dichlorobenzenes) 26. Dichlorobenzidine 27. Dichloroethylenes (1,1 -,and 1,2-dichloroethylene) 28. 2,4-dichlorophenol 29. Dichloropropane and dichloropropene 30. 2,4-dimethylphenol 31. Dinitrotoluene 32. Diphenylhydrazine 33. Endosulfan and metabolites 34. Endrin and metabolites¹ 35. Ethylbenzene 36. Fluoranthene | <ol style="list-style-type: none"> 37. Haloethers (other than those listed elsewhere; includes chlorophenylphenyl ethers, bromo phenylphenyl ether, bis- (dichloroisopropyl) ether, bis-(chloroethoxy) methane and poly chlorinated diphenyl ethers) 38. Halomethanes (other than those listed elsewhere; includes methylene chloride methylchloride, methylbromide, bromoform, dichlorobromo methane, trichlorofluoromethane, dichloro difluoromethane) 39. Heptachlor and metabolites 40. Hexachlorobutadiene 41. Hexachlorocyclohexane (all isomers) 42. Hexachlorocyclopentadiene 43. Isophorone 44. Lead and compounds 45. Mercury and compounds 46. Naphthalene 47. Nickel and compounds 48. Nitrobenzene 49. Nitrophenols (including 2,4-dinitrophenol, dini trocresol) 50. Nitrosamines 51. Pentachlorophenol 52. Phenol 53. Phthalate esters 54. Polychlorinated biphenyls (PCBs)¹ 55. Polynuclear aromatic hydrocarbons (including benzanthracenes, benzopyrenes, benzo fluoranthene, chrysenes, dibenzanthracenes, and indenopyrenes) 56. Selenium and compounds 57. Silver and compounds 58. 2,3,7,8,-tetrachlorodibenzo-p-dioxin (TCDD) 59. Tetrachloroethylene 60. Thallium and compounds 61. Toluene 62. Toxaphene¹ 63. Trichloroethylene 64. Vinyl chloride 65. Zinc and compounds |
|---|---|

¹Effluent standard promulgated (40 CFR Part 129).

²The term "compounds" shall include organic and inorganic compounds.

Footnotes

1. P.L. 95-217, 33 U.S.C. 466, *et seq.*, Clean Water Act of 1977. (*Environment Reporter—Federal Laws*, p. 71: 5101).
2. *Environment Reporter—Current Developments*, June 11, 1976, pp.219,241.
3. 8 *ERC* 2120.
4. *Conference Report* (H. Rept. No. 95-830), 95th Congress, Second Session, dated December 6, 1977, at page 89 (hereinafter *Conference Report*) (*Environment Reporter—Current Developments*, December 9, 1977, p. 1224)
5. *Conference Report* at page 90. (*Environment Reporter—Current Developments*, December 9, 1977, p. 1224).
6. *Ibid.*, at page 89.
7. See Senate Report 95-370 (hereinafter *Senate Report*) at page 61 for comment on the relationship between adjudicatory hearings and a determination of "good faith."
8. *Conference Report* at page 89.
9. Senate Report at page 61.
10. *Senate Report* at page 47.
11. *Ibid*
12. See *Senate Report* at page 48, which says, "For the purposes of this section, a finding of good faith includes the consideration of any possible economic advantage *vis a vis* other competing industries, and whether the point source has met the requirements of its existing permit and operated its limited facilities competently and responsibly."
13. *Conference Report* at page 85.
14. 40 *CFR* 124.52. Environmental Protection Agency Regulations on State Program Elements Necessary for Participation in the National Pollutant Discharge Elimination System. (*Environment Reporter—Federal Regulations*, p.131:2601).
15. *Senate Report* at page 50.
16. *Conference Report* at page 80.
17. *Ibid.*, at page 53.
18. Section 75 of the Clean Water Act of 1977. (*Environment Reporter Federal Laws*, p. 71:5173)