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EPA

# *De Minimis* Discharges Study

## Report to Congress

# *De Minimis* Discharges Study

REPORT TO CONGRESS

**Prepared by:**

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- Office of Wetlands, Oceans and Watersheds

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# EXECUTIVE SUMMARY

The objective of this report is to determine whether there are point source discharges into navigable waters that, in terms of volume, concentration, and type of pollutant, are not significant, and to determine the most effective and appropriate methods of regulating any such discharges. This report is required by Section 516 of the Water Quality Act of 1987.

This Report to Congress addresses the requirements of Section 516 by identifying potential *de minimis* discharges and recommending effective and appropriate methods of regulating those discharges. The Report includes five major elements: (1) legislative history and background, (2) classification of *de minimis* discharges, (3) regulatory options, (4) unit resource and cost savings of the regulatory options; and (5) recommendations.

## Legislative History and Background

In 1972 under the Federal Water Pollution Control Act Amendments (FWPCA), the National Pollutant Discharge Elimination System (NPDES) was established. The NPDES Program requires all point source discharges of pollutants to have a permit (except as provided in Section 404 of the Water Quality Act, which regulates dredge and fill activities). Considerable resources for both permitting agencies and permittees are involved in the NPDES permit process. Permits for major discharges average 30 pages, consume four months' processing time, and cost thousands of dollars to issue.

Since 1972, approximately 65,000 dischargers in the United States have been issued NPDES permits, which require renewal at a maximum of five-year intervals. EPA and State

permitting agencies are faced with an increasing backlog of permits that have expired and should be reissued. EPA has always been concerned about how to set priorities for permit writing. The Agency has grappled with this problem in a number of ways. One of the first steps EPA took in setting priorities was to classify all discharges as either major or minor. Confronted with the enormous task of reviewing permits for major point source discharges, EPA and State agencies have not been able to act on over 10,000 permit applications and numerous permit renewals, nearly all of which are minor point source discharges.

In 1982, during public hearings before Congress, modifications to the NPDES permit regulations that address insignificant discharges were suggested as possible amendments to the FWPCA. During these hearings, the term *de minimis* was used to reflect insignificant discharges. The *de minimis* concept under the NPDES program was further discussed during public hearings before Congress in 1983 and 1985. In 1987, Congress passed the Water Quality Act, which mandated this study of *de minimis* discharges in lieu of amending NPDES permit requirements for such discharges.

## Classification of *De Minimis* Discharges

Potential *de minimis* discharges are classified in this report through a two-part process using readily available data and supporting information from permitting authorities. The first part screens the potential number of *de minimis* discharges by evaluating the type of facility, type of effluent, current Federal effluent regulations, and permit limitations. This initial screening had to be conducted on a very limited data base since most permitting and compliance monitoring activities have concentrated on major discharges, which by definition are not *de minimis*. Because the data on most minor facilities are limited, entire groups of dischargers were screened out from the category of potential *de minimis* if there was reason to conclude that a group of permittees contained at least a reasonable number of dischargers that could not be considered *de minimis*. The Agency approached the *de minimis*

classification in this manner to avoid overestimating the number of *de minimis* discharges. As a result, the projected number of potential *de minimis* discharges may be underestimated; some facilities that were categorically excluded could be determined to qualify as *de minimis* if it were possible to examine them on a case-by-case basis. The second part applies site-specific criteria to confirm that the discharges are insignificant. Based on the initial screening, the number of facilities classified in this study as potentially *de minimis* is projected nationwide.

## Screening and Evaluation of Discharges

The first part of the classification procedure evaluated and sorted NPDES facilities into four categories:

- **Primary Industrial Facilities:** Primary industries are considered to have a high potential for toxic pollutant discharges. All primary facilities are excluded from *de minimis*.

- **Sewage Treatment Facilities:** Facilities classified as sewage treatment facilities have a high potential for toxic pollutant discharges, ammonia, and chlorine, as well as pathogens. Consequently, all sewage treatment facilities are excluded from *de minimis*.

- **Unknown Facilities:** All facilities with incomplete or insufficient data that could not be classified in any industrial category are considered to be potential dischargers of toxic pollutants for the purposes of this study and are excluded from *de minimis*.

- **Secondary Facilities:** Secondary facilities were categorized into three groups: (1) facilities with significant potential for toxics in their discharge; (2) facilities with effluent guidelines; and (3) all others. Facilities classified as "all others" were further classified into facilities with permit limitations for any toxics, ammonia, or chlorine and facilities projected to be potential *de minimis*.

## Application of Site-Specific Criteria

Once a facility is categorized as potential *de minimis*, the second part of the classification procedure would apply site-specific criteria, used by the Agency's Office of Wastewater Enforcement and Compliance (OWEC) for major/minor designations, to confirm a facility as *de minimis*. This portion of the procedure would be performed by the permitting authorities. The criteria address six characteristics of the discharge:

- Toxic pollutant discharge;
- Flow/stream flow volume;
- Conventional pollutants;
- Public health impact;
- Water quality factors; and
- Proximity to near coastal waters.

## Nationwide Projections

An estimated 893 facilities (1.2 percent of all active NPDES facilities) are projected, as a group, to be potentially *de minimis*, applying the classification system previously discussed (See Table 1). Each facility would require site-specific evaluation before being confirmed as insignificant in terms of volume, concentration, and pollutant type.

Table 1
Projection of Potential *De Minimis* Discharges

| | Active NPDES Facilities | | Potential *De Minimis* | |
|---|---|---|---|---|
| Facility Type | Number | Percent | Number | Percent |
| Primary Industrial | 17,463 | 23.4 | 0 | -.- |
| Sewage Treatment | 21,073 | 28.3 | 0 | -.- |
| Unknown | 4,031 | 5.4 | 0 | -.- |
| Secondary Facilities | 31,958 | 42.9 | 893 | 1.2 |
| TOTAL | 74,525 | | 893 | |

## Regulatory Options of *De Minimis* Discharges

*De minimis* discharges may be suitable for alternative regulatory approaches. Existing regulatory options include the standard NPDES program (including model permits) and the general permit. Possible alternative regulatory options that would require statutory change include the ten-year permit, over-the-counter permits, exclusion by waiver from the NPDES program, and the national rule approach. These options are described below:

- **Model Permit:** Uses an "example" standard permit to reduce burden. Requires complete application and processing.

- **General Permit:** Extends broad coverage for a class of similar discharges. Contains many of the standard permit provisions at a considerable reduction in administrative burden. Requires review by EPA Region and/or Headquarters.

- **Ten-Year Permit:** Extends the lifetime of the permit from 5 to 10 years. Requires a statutory change. Difficulties perceived in responding to changes in effluent, regulations, etc.

- **Over-the-Counter Permits:** Abbreviates application and permit process. (Applicants receive same-day or 24-hour service.) May require statutory change. Difficulties perceived in maintaining public notice and establishing suitable Regional/State permitting procedures.

- **Exclusion by Waiver from the NPDES Program:** Excludes certain categories of discharges from NPDES. Requires a statutory change and case-by-case designations. May eliminate some discharges from regulation; possible water quality impacts.

- **National Rule:** Allows the instantaneous regulation of large groups of *de minimis* discharges by coverage under a general rule. The rule would state coverage of specified activities and corresponding national standards (similar to EPA National Ambient Air Quality Standards) that would apply to the facility. Requires confirmation of *de minimis* status. A Notice of Intent may also be required.

## Unit Resource and Cost Savings of Regulatory Options

Analyses were conducted to determine the potential unit savings in resources (person-hours) and costs attributable to the alternative regulatory options. These addressed only savings for permitting agencies (EPA and approved States); savings for industry and other permittees were not considered. Primary data were obtained from two sources: (1) the 1986 North Carolina Effort and Cost of Permitting Study, which outlines the permit steps and effort involved in a standard/model permit program; and (2) the 1987 EPA Permit Issuance Workload Model, which predicts levels of effort involved in permitting various discharges. Supporting information was obtained from the EPA Regional permitting authorities and State permitting agencies.

In comparing the projected resources (person-hours) and costs of the various alternative regulatory options, unit (per plant) governmental savings are as follows:

| | | Resource (%) | Cost (%) |
|---|---|---|---|
| 1. | Exclusion by Waiver | 92 | 94 |
| 2. | General Permit | 20 | 23 |
| 3. | Over-the-Counter Permit | 19 | 22 |
| 4. | Ten-Year Permit | 16 | 17 |

Savings are in relation to the Standard/Model (baseline) Permit requiring an estimated 147 person-hours and $1,807 per facility over a 5 year term.

The national rule approach was not evaluated since it requires that classes of discharges be confirmed as *de minimis* before any site-specific investigations are conducted. EPA's limited data base on these potential *de minimis* discharges prevents this confirmation.

## Recommendations

An estimated 893 facilities (1.2 percent of all active NPDES facilities) belong to industrial types that can readily be projected as potentially *de minimis*. In part, because it is the best regulatory option available under current law, the general permit is recommended as the most effective and appropriate method of regulating these discharges (Table 2). Although a prudently managed system for exclusion by waiver or a national permit by rule approach for *de minimis* discharges may ultimately offer the greatest savings to government and the economy, quite possibly at little risk to the environment, those options are not available under current law. General permits can be issued with unit resource and cost savings of 20 and 23 percent, respectively. No statutory change is required as general permit regulations were promulgated in 1979. General permits are currently used by a number of EPA Regions and approved States with noted success in reducing the burden for permitting agencies. A positive consensus was received from EPA Regional and State permitting authorities on the applicability of general permits. However, the general permit will be effective only if the number of potential *de minimis* discharges within a specified geographical or political boundary is adequate to make the permit administratively worthwhile. (General permits are rulemakings that require substantial data gathering on the part of permitting agencies.) In such cases where the general permit is not effective, individual 5 year permits would be appropriate based on standard "models" issued by EPA as guidance. Model permits can be

Table 2
Summary of Regulatory Option Evaluations

| Permitting Option | Statutory/ Regulatory Change | Utilization | Unit Savings | | Positive Consensus from Permitting Authorities |
|---|---|---|---|---|---|
| | | | Resource (Percent) | Cost (Percent) | |
| General Permit | No | 28 NPDES States plus 16 non-NPDES States or Territories | 20 | 23 | Yes |
| Ten-Year Permit | Yes | California non-NPDES extended-life permits | 16 | 17 | Yes |
| Over-the-Counter Permit | Maybe | New Jersey for non-NPDES permits | 19 | 22 | No |
| Exclusion by Waiver | Yes | California for land discharges (non-NPDES) | 92 | 94 | Yes |

helpful by giving generic permit requirements and guidelines for certain types of discharges. This template can then be tailored to a specific discharge with less burden than it takes to develop a permit from scratch.

# INTRODUCTION

The objective of this study is to determine whether there are point source discharges into navigable waters that, in terms of volume, concentration, and type of pollutant, are not significant (i.e., *de minimis*). The Agency is required to submit a Report to Congress on the results of the study, along with recommendations concerning the most effective and appropriate methods of regulating such discharges. This study was required by Congress in lieu of revisions to this aspect of the National Pollutant Discharge Elimination System (NPDES).

As established by Section 402(a)(l) of the Clean Water Act (CWA), all point source discharges of pollutants to navigable waters must have a NPDES permit (except as provided in Section 404 which regulates dredge and fill activities). The time and resources involved in the NPDES permit process are considerable for both the regulatory agency and industry. Permits for major discharges average 30 pages, consume 4 months' processing time, and cost thousands of dollars to issue.

Since 1972, approximately 65,000 NPDES permits have been issued, which require renewal at a maximum of five-year intervals. EPA and State permitting agencies are faced with an increasing backlog of permits that have expired and should be reissued. EPA has always been concerned about how to set priorities for permit writing. The Agency has grappled with this problem in a number of ways. One of the first steps EPA took in setting priorities was to classify all discharges as either major or minor. Confronted with the enormous task of reviewing permits for major point source discharges, the EPA and State

agencies have not acted on over 10,000 permit applications and numerous permit renewals, the majority of which are minor point source discharges.

If discharges are *de minimis*, based on concentration, volume, and type of discharge, and do not significantly impact water quality, regulatory options may be recommended to reduce their regulatory/administrative burden on the regulatory agencies as well as industry. Resources could then be concentrated on permit compliance rather than permit administration.

Chapter One of this report provides background information on the evolution of the *De Minimis* Discharge Study. The legislative history is presented, beginning with the 1982 public record, which mentions excluding "insignificant discharges" from the requirements of NPDES permits. A description of the Regional/State survey conducted for this study is also included.

Chapter Two presents the data and information pertinent to classifying a discharge as *de minimis* using criteria established by the Agency. The methodology and data sources used in the assessment are discussed. The assessment was severely hampered by the lack of data since most permitting and compliance monitoring activities have concentrated on major discharges, which, by definition, are not *de minimis*. The specific criteria used in the classifications, such as Standard Industrial Classification (SIC) code and effluent characteristics, are defined. The chapter concludes with a classification of potential *de minimis* discharges.

Chapter Three discusses existing regulatory options currently in use and other potential regulatory options compiled by the Agency. Regulatory options are described and evaluated.

Chapter Four assesses the potential unit cost savings to permitting agencies in terms of resources and dollars that could be attributed to the alternative regulatory options used to permit *de minimis* discharges. The development of a permitting resource model is discussed, and unit savings to government are projected and evaluated for each regulatory option. This chapter concludes with a comparison of savings.

Chapter Five presents the conclusions and recommendations of the Agency. It provides an overview on the Agency's findings, as well as recommendations concerning the most effective and appropriate methods of regulating *de minimis* discharges.

Various appendices are attached to this report, providing more detail on the specific issues and options addressed in the main text. Appendix A presents, in chronological order, all information found in the public records concerning the legislative evolution of the study of *de minimis* discharges. Appendix B provides the questionnaire used to survey permitting authorities on the types or categories of discharges that could be considered *de minimis*, as well as to recommend regulatory options. Appendices C and D summarize the results of the Study's survey of Regional and State permitting authorities. Appendices E through J contain additional information on the classification of *de minimis* discharges. Appendix K provides a summary of the States approved to issue permits under the standard NPDES program. Appendix L provides general permit information, including current program status and a listing of categories currently covered by general permits. Appendix M includes the North Carolina Case Study on the Effort and Cost of Permitting. Appendix N presents the EPA workload model that estimates outputs, workloads, and resources for various types of NPDES permits.

## Chapter One

# BACKGROUND

### LEGISLATIVE HISTORY

The evolution of the *De Minimis* Discharges Study was obtained from the *Congressional Record*, which was reviewed for all references to the Federal Water Pollution Control Act (FWPCA) or the Clean Water Act (CWA) for the years 1981-1987. The legislative record for previous years was examined with respect to amendments to the FWPCA. Appendix A presents, in chronological order, all information found in the public records concerning the legislative evolution of the study of *de minimis* discharges. All page references cited in this chapter are contained in Appendix A.

The National Pollutant Discharge Elimination System (NPDES) was established with the passage of Public Law 92-500, called the FWPCA Amendments of 1972 (also known as the Clean Water Act), by the second session of the 92nd Congress on October 12, 1972. The NPDES program requires all point source discharges of pollutants (other than dredged or fill material regulated under Section 404 of the CWA) to United States waters to have a permit, the term of which may not exceed 5 years. Subsequent amendments to the FWPCA were produced by Congress, but contained no references to insignificant (*de minimis*) discharges.

Modifying regulations for insignificant discharges under the NPDES permit program were first proposed during public hearings held in 1982 on possible amendments to the FWPCA. Hearings were again held in 1983 and 1985. The bill passed by Congress in February 1987 became Public Law 100-4 (PL 100-4), amending the FWPCA. Section 516

of the Water Quality Act (WQA), a "Study of *De Minimis* Discharges," mandated the study of insignificant discharges of pollution, as well as recommendations for methods to best regulate them. The following paragraphs present the legislative evolution of the *De Minimis* Discharges Study.

The 1982 hearings before the Subcommittee on Water Resources of the U.S. House of Representatives Committee on Public Works and Transportation produced the first mention in the public record of the exclusion of "insignificant discharges" from the requirements of the NPDES permit program. The idea was first set out by J.C. Hildrew, speaking for the American Petroleum Institute on July 28, 1982. He quoted a 1979 report of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) as source of the assertion that "about 51 percent of all permits issued . . . involved relatively insignificant facilities with respect to point source pollution concerns," which places a heavy burden, in terms of both time and cost, on government and industry. He concluded that "the EPA Administrator should be given specific authority to exempt environmentally insignificant discharges from the requirements of the NPDES permit program" (p. A-1). On July 29, R.F. Flacke, Commissioner of the New York State Department of Environmental Conservation, estimated the number of "dischargers of a minor nature" to be "about eighty percent of the permittees." He stated that these minor discharges do not require review every 5 years due to "the unchanging nature of the waste streams and/or the lack of additional treatment requirements" (p. A-5). J.W. Haun, speaking for the National Environmental Development Association (NEDA) on July 29, introduced the term "*de minimis*" for those discharges that ". . . based on concentration, volume, and type of discharge . . . are insignificant to the protection of water quality . . . " and advocated their exemption from NPDES requirements (p. A-6). Following these hearings, a bill (H.R. 3282) was introduced by Rep. Howard on June 13, 1983, and contained Section 35 entitled "Study of Regulation of *De Minimis* Discharges" (p. A-9).

The Committee on Public Works and Transportation, U.S House of Representatives, held hearings in the fall of 1983 on possible amendments to the FWPCA. On September 20, H.G. Williams, Commissioner of the New York State Department of Environmental Conservation, reported that "in New York, ninety percent of the point source pollution comes from ten percent of the sources." He recommended the extension of NPDES permits to a duration of 10 years to ". . . give regulating agencies the ability to concentrate their resources on permit compliance rather than permit administration" (p. A-11). O.G. Simpson, Atlantic Richfield Company, urged the exemption of "*de minimis* classes of point source dischargers of conventional pollutants" (p. A-12). K.E. Blower of the Standard Oil Company of Ohio, representing the American Petroleum Institute Water Program Committee, on November 10 urged Congress ". . . (a) to exempt appropriate discharges from categories of point sources, and (b) to exempt specific point source discharges on a case-by-case basis" (p. A-13). J.W. Haun, appearing again for NEDA, recommended that "the EPA Administrator should be allowed to exempt *de minimis* point source discharges and channeled stormwater runoff containing *de minimis* quantities of pollutants from the NPDES permit procedure" (p. A-15). After this phase of hearings, the text of H.R. 3282, ordered to be printed by the Committee of the Whole House on June 6, 1984, retained its Section 35 (p. A-16).

On June 20, 1984, Rep. Oberstar and cosponsors introduced H.R. 5903; Section 35 of that act required a study of regulation of *de minimis* discharges, which was identical in wording to that of H.R. 3282 (p. A-18). A subsequent amendment (p. A-20) merged the two bills into H.R. 3282, which was passed by the House on June 26 (p. A-22), sent to the Senate, and placed on the calendar on July 24. H.R. 3282 died for lack of action.

When the 99th Congress convened in 1985, Rep. Howard on January 3 introduced H.R. 8, which was a virtual copy of his H.R. 3282 of 1983; Rep. Oberstar on March 7

introduced H.R. 1509, which was a virtual copy of his H.R. 5903 of the previous year. Both bills contained *de minimis* discharges study sections identical in wording (pp. A-26 and A-28). J.L. Ledbetter, Commissioner, Department of Natural Resources, State of Georgia, appeared at a hearing before the Subcommittee on Water Resources of the House Committee on Public Works and Transportation on April 30, 1985. Speaking for ASIWPCA, he estimated that "in most states, seventy-five percent of the permits are for relatively small dischargers with nontoxic wastewaters, and 10-year permits would enable the states to spend more time developing and re-opening the permits for major sources" (p. A-29). Amendments were added to H.R. 8 in July; renumbering of the sections caused the study of *de minimis* discharges to become Section 43, but the wording was unchanged (p. A-30).

On July 23, H.R. 8, as amended, was passed by the House. The House then agreed to consider Senate bill 1128. Rep. Howard amended it by substituting its contents with the text of H.R. 8 as passed. This brought about another renumbering of sections, and the *de minimis* discharges study became Section 67 (p. A-36). The Senate disagreed with the House amendments and requested a conference. S. 1128 emerged from the conference on October 15, 1986, in drastically altered form, but the *de minimis* discharges study was retained and became Section 516 (p. A-38). S. 1128 was pocket vetoed by President Reagan.

On January 6, 1987, S. 1 was introduced in the Senate by Sen. Byrd and numerous cosponsors, and H.R. 1 was introduced in the House of Representatives by Rep. Howard and a multitude of cosponsors. The bills were identical and contained the exact wording of S. 1128. In the House debate, Rep. Hammerschmidt expressed his belief that most stormwater discharges would not have significant environmental impacts and would not require permits (p. A-47). The House passed H.R. 1 on January 8, 1987 (p. A-49). As a part of the Senate consideration of H.R. 1, Sen. Dole proposed an amendment that would

reduce the funding. This amendment had two sections dealing with the *de minimis* discharges study, 511 and 526, which were identical in wording and unaltered from Section 516 of S. 1 and H.R. 1. The Dole amendment was rejected by a vote on January 21, 1987, after which the Senate passed the original bill. President Reagan vetoed the bill on January 30. The House voted on February 3, 1987, to override the veto, and the Senate followed suit on February 4. The study of *de minimis* discharges was thus mandated.

## REGIONAL AND STATE PERMITTING AUTHORITY CONTRIBUTIONS

The NPDES permitting program is administered by Regional (EPA) and authorized State permitting agencies throughout the United States. EPA Regional permitting authorities were initially contacted to provide suggestions on the types or categories of discharges that could be considered *de minimis*, including data and supporting rationale. A detailed questionnaire was then developed on the basis of the responses (Appendix B).

The ten EPA Regional permitting authorities and nine State permitting agencies (Maine, New Jersey, Pennsylvania, Kentucky, Wisconsin, Texas, Missouri, California, and Washington) recommended by the Regional offices (Figure 1-1) were surveyed to obtain information on the types or categories of discharges that could be considered *de minimis*, as well as to obtain recommendations for regulatory options and to identify associated procedural implications with respect to the classification of *de minimis* discharges. Results of the survey were assessed and compiled. Regional and State permitting agencies recommended several categories of *de minimis* discharges that national data bases have identified as having a potential discharge of toxics (Appendices C and D). As a result, these recommendations were not carried forward in this report.

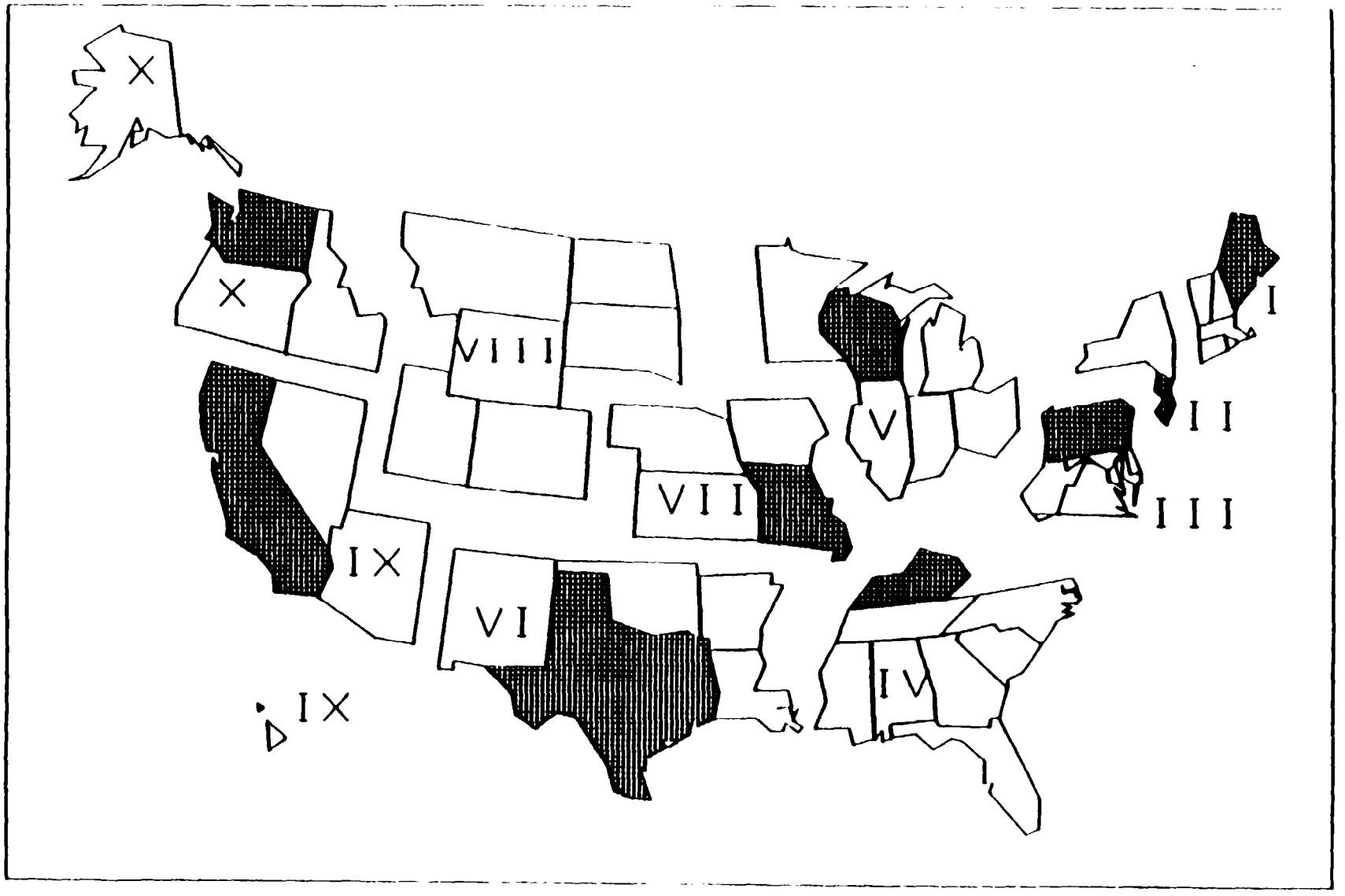



Figure 1-1. EPA Regional and State Contacts for the De Minimis Discharges Study.

## Chapter Two

# CLASSIFICATION OF *DE MINIMIS* DISCHARGES

Over 74,000 facilities nationwide are currently discharging into navigable waters. From an environmental standpoint, any discharge may have a potential for water quality impacts. However, some types of discharges may not be significantly impacting water quality. This chapter classifies those discharges identified as potentially *de minimis* using readily available data, supporting information, and guidelines established by the Agency. The classification process was severely hampered by the lack of data since most permitting and compliance monitoring activities have concentrated on major discharges, which, by definition, are not *de minimis*. The classification is a two-part process involving (1) screening and evaluation of discharges according to the type of facility, type of effluent, current Federal regulations, and permit limitations to quantify potential *de minimis* discharges and, subsequently, (2) application of site-specific criteria to confirm a discharge as *de minimis*. Based on the initial screening, which is the level of analysis conducted for this report, the number of facilities classified in this study as potentially *de minimis* is projected nationwide. The criteria to confirm a discharge as *de minimis* under the second part of the process are outlined, but none of the facilities classified as potentially *de minimis* have actually been confirmed from the initial screening as part of this report.

## METHOD OF CLASSIFICATION

Data were retrieved from four EPA data bases (Permit Compliance System (PCS), Industrial Facilities Discharge (IFD) file, REACH, and GAGE), and subsequently compiled and analyzed using a computerized software system. Facilities identified in PCS as actively discharging into "waters of the United States" were retrieved by State or Territory for the ten

EPA Regional Divisions of the United States (Table 2-1) and classified into four categories based on the facilities' 1972 Standard Industrial Classification (SIC) codes: (1) primary industrial, (2) sewage treatment, (3) unknown, and (4) secondary (Table 2-2). The four categories were defined in order to determine industries that discharge or have the potential to discharge pollutants (toxics, conventional pollutants, and nonconventional pollutants (ammonia and chlorine)) into receiving streams. The secondary facilities category contains the largest number of active facilities (Figure 2-1). The four categories were then screened and evaluated for potential *de minimis* status.

## Screening and Evaluation of Discharges

The screening and evaluation of a facility's discharge were based on four criteria: (1) category of industry; (2) effluent characteristics, such as the type of effluent and its potential for toxic pollutants; (3) promulgation of Federal effluent limitation guidelines and standards for toxics, conventional pollutants, and nonconventional pollutants; and (4) permit limitations for any toxics, ammonia, or chlorine.

Several assumptions and limitations were made in applying these criteria.

1. Differences may exist in the level and types of discharges of toxic substances between subcategories of the same SIC code. However, a nationwide data base of facilities by subcategory was unavailable to complete this study. Therefore, the number of facilities projected with toxic pollutant discharges may be overestimated since toxicity data were extrapolated to the entire industry (i.e., SIC code).

Table 2-1

States and U.S. Territories Addressed by the
*De Minimis* Discharges Study

REGION I

Connecticut (CT)
Maine (ME)
Massachusetts (MA)
New Hampshire (NH)
Rhode Island (RI)
Vermont (VT)

REGION II

New York (NY)
New Jersey (NJ)
Puerto Rico (PR)
Virgin Islands (VI)

REGION III

Delaware (DE)
Washington, D.C. (DC)
Maryland (MD)
Pennsylvania (PA)
Virginia (VA)
West Virginia (WV)

REGION IV

Alabama (AL)
Florida (FL)
Georgia (GA)
Kentucky (KY)
Mississippi (MS)
North Carolina (NC)
South Carolina (SC)
Tennessee (TN)

REGION V

Illinois (IL)
Indiana (IN)
Michigan (MI)
Minnesota (MN)
Ohio (OH)
Wisconsin (WI)

REGION VI

Arkansas (AR)
Louisiana (LA)
Oklahoma (OK)
Texas (TX)
New Mexico (NM)

REGION VII

Iowa (IA)
Kansas (KS)
Missouri (MO)
Nebraska (NE)

REGION VIII

Colorado (CO)
Montana (MT)
North Dakota (ND)
South Dakota (SD)
Utah (UT)
Wyoming (WY)

REGION IX

California (CA)
Nevada (NV)
Arizona (AZ)
Hawaii (HI)
American Samoa (AS)
Guam (GU)

REGION X

Alaska (AK)
Idaho (ID)
Oregon (OR)
Washington (WA)

Table 2-2

Categories Used to Define Potential
*De Minimis* Discharges

| Category | | Definition |
|---|---|---|
| 1 | Primary Industrial Facilities: (17,463 Facilities) | Facilities included as part of the industry categories listed in the National Resources Defense Council (NRDC) settlement agreement (Table 2-3). "Any permit issued after June 30, 1981, to dischargers in the following categories shall include effluent limitations and a compliance schedule to meet the requirements of Section 301(b)(2)(A), (C),(D),(E), and (F) of CWA, whether or not applicable effluent limitations guidelines have been promulgated." (CFR, Appendix A of Part 122, as identified in PCS). These facilities have a high potential for toxic pollutant discharge. |
| 2 | Sewage Treatment Facilities: (21,073 Facilities) | Establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes as may be provided (SIC 4952). |
| 3 | Unknown Facilities: (4,031 Facilities) | Facilities with an unknown Standard Industrial Classification or listed as nonclassifiable. |
| 4 | Secondary Facilities: (31,958 Facilities) | All facilities categorized other than primary facilities, sewage treatment facilities, or unknown facilities. |

Table 2-3

Category 1
NPDES Primary Industrial Categories

| |
|---|
| Adhesives and sealants |
| Aluminum forming |
| Auto and other laundries |
| Battery manufacturing |
| Coal mining |
| Coil coating |
| Copper forming |
| Electrical and electronic components |
| Electroplating |
| Explosives manufacturing |
| Foundries |
| Gum and wood chemicals |
| Inorganic chemicals manufacturing |
| Iron and steel manufacturing |
| Leather tanning and finishing |
| Mechanical products manufacturing |
| Nonferrous metals manufacturing |
| Ore mining |
| Organic chemicals manufacturing |
| Paint and ink formulation |
| Pesticides |
| Petroleum refining |
| Pharmaceutical preparations |
| Photographic equipment and supplies |
| Plastics processing |
| Plastic and synthetic materials manufacturing |
| Porcelain enameling |
| Printing and publishing |
| Pulp and paper mills |
| Rubber processing |
| Soap and detergent manufacturing |
| Steam electric power plants |
| Textile mills |
| Timber products processing |

Source: CFR, Appendix A of Part 122

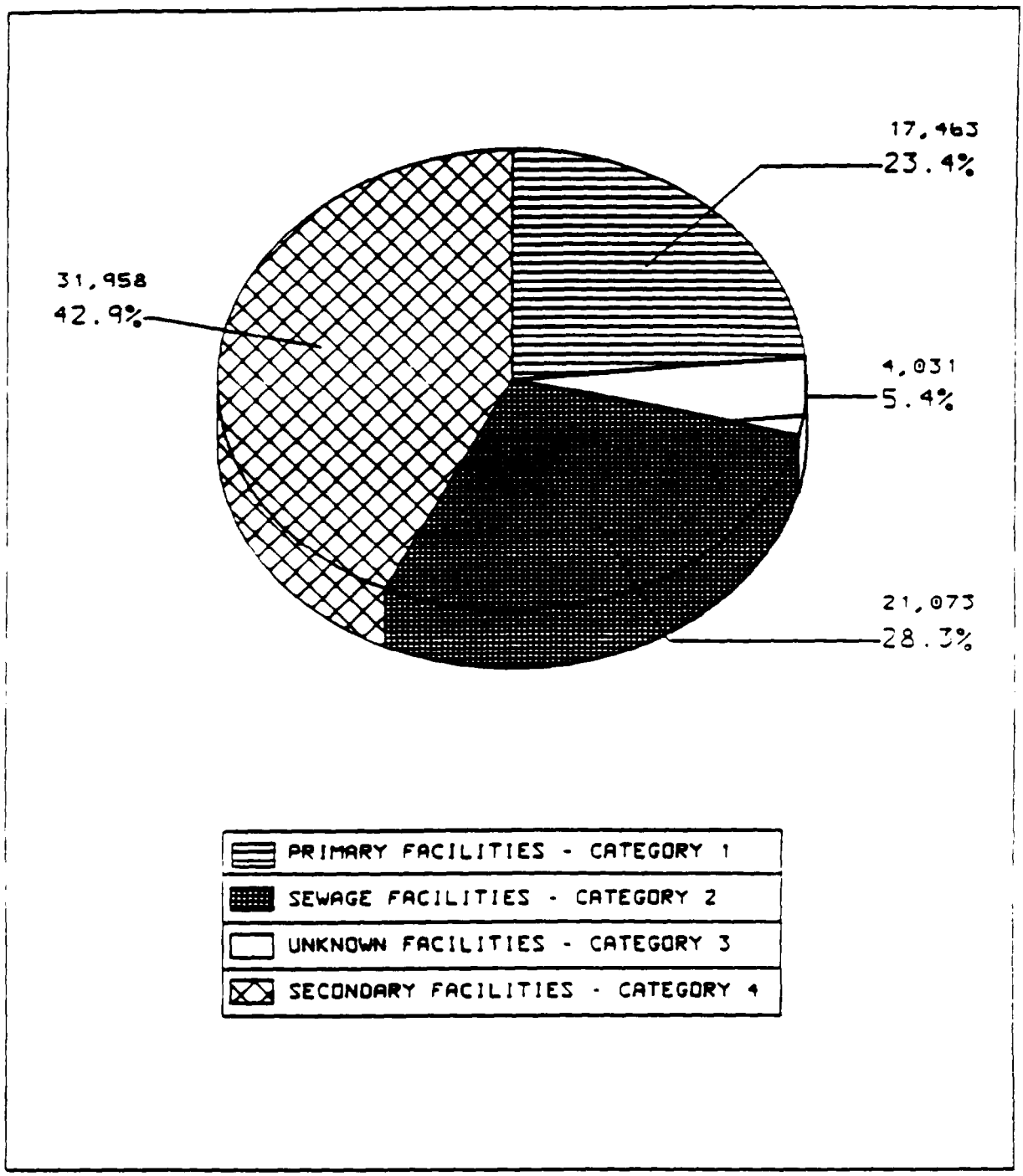



Figure 2-1. Nationwide Distribution of All Active NPDES Facilities. (74,525)

2. Limitations existed in the identification of secondary facilities with potential for discharging toxics, ammonia, or chlorine. Because of the limited data, if one facility was identified as having a limit for one of these pollutants, the entire industry was projected within a SIC code to have a potential impact on water quality. Therefore, the number of facilities with projected impacts from these pollutants may be overestimated.

3. Limitations existed in all of the national data bases. Since most data- gathering activities have concentrated on major discharges, data were incomplete, in particular, regarding the characterization of the type and amount of minor discharges and the identification of the receiving stream to which the facility discharges. Therefore, the number of facilities projected to be potential *de minimis* represents only a rough estimate of the total number.

The application of criteria to the four major levels of categories to identify a facility as potential *de minimis* was as follows (Figure 2-2):

**Primary Industrial Facilities (Category 1):** Industries in this category have been defined, through research and evaluation by the Agency, as having a high potential for toxic pollutant discharge. Therefore, facilities with process wastewater discharges (which have come into direct contact with or result from the production or use of any raw materials or product) were excluded from *de minimis*.

Primary facilities with only noncontact cooling discharges were also excluded from potential *de minimis*. These discharges would have potential for water quality impacts because of the potential for toxics due to the use of algicides, slimicides, and corrosion inhibitors in noncontact cooling waters.

**Sewage Treatment Facilities (Category 2):** Facilities classified as sewage treatment facilities are defined as facilities primarily engaged in the collection and disposal of wastes conducted through a sewer system including both privately and publicly owned treatment

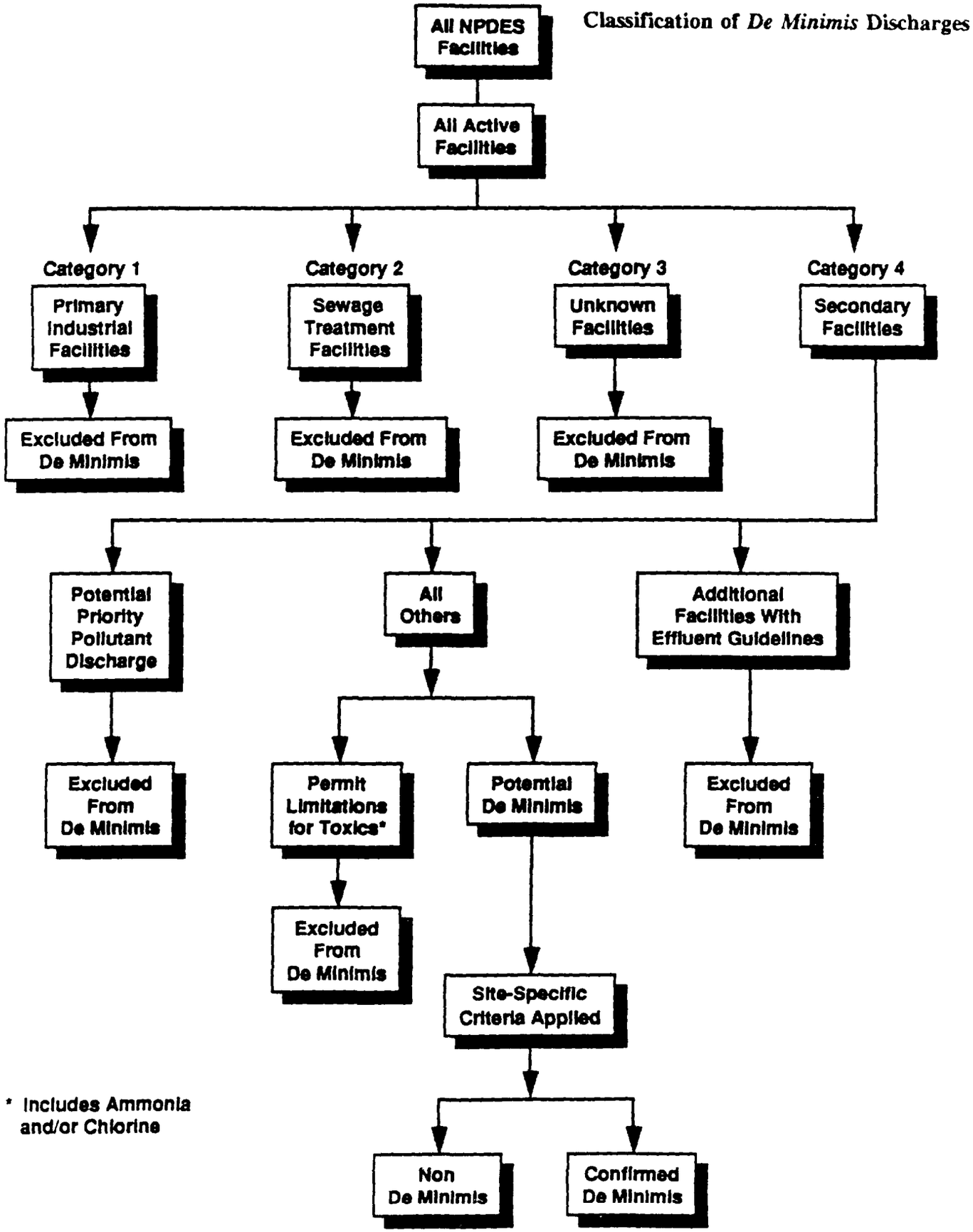



Figure 2-2. Schematic Diagram of Nationwide Classification of Potential De Minimis Discharges.

works. Facilities in this category have a high potential for toxic pollutant discharges, ammonia, and chlorine, as well as pathogens. Ammonia is frequently found in the effluent because of the nature of the waste, with chlorine being used as a disinfectant. Ammonia and chlorine are known to be toxic to fish; EPA has established national water quality criteria for the protection of aquatic life at 1.15 mg/L-N (pH 7.75, temperature 20°C) for ammonia and 0.11 mg/L for chlorine. Consequently, all sewage treatment facilities were excluded from *de minimis*, regardless of discharge flow, including both privately and publicly owned treatment works.

**Unknown Facilities (Category 3):** All facilities that could not be classified in any industry had an unknown potential for toxic pollutant discharge. Unknown facilities were excluded from *de minimis*.

**Secondary Facilities (Category 4):** Secondary facilities were classified into one of three groups: facilities with a significant potential for toxics in their discharge, additional facilities with effluent guidelines, and facilities classified as "all others." Facilities classified as "all others" were further classified into facilities with permit limitations for any toxics, ammonia, or chlorine, and facilities projected to be potential *de minimis*.

Facilities in industries with significant potential for toxics were identified through four evaluations:

1. Industries defined by the National Enforcement Investigative Center (NEIC) with a probable discharge of toxic pollutants (Appendix E).

2. Industries regulated by Federal effluent limitation guidelines or standards for toxic pollutants.

3. Industries identified in the Domestic Sewage Study (DSS) as having a high potential for toxic discharge. The DSS evaluated the impacts of hazardous wastes discharged to local wastewater treatment plants.

4. Industries currently being evaluated for possible effluent limitation guidelines development (by the Engineering and Analysis Division (EAD)).

All facilities in industries with a significant potential for toxics were excluded from *de minimis*, including facilities with only noncontact cooling water discharges. Noncontact cooling water discharges were eliminated because of the potential for being contaminated with algicides or slimicides.

Facilities in industries regulated by Federal effluent limitation guidelines or standards for conventional or nonconventional pollutants were excluded from *de minimis* based on the potential for significant water quality impacts. All facilities were excluded, including facilities with only noncontact cooling water discharges.

Facilities classified as "all others" with permit limits (PCS) for any toxics, including ammonia or chlorine (which are classified as nonconventional pollutants but are also known to be highly toxic) were also evaluated. Because of the limited available data and small sample size within an industrial category, a statistical analysis was not feasible. Therefore, if one facility was identified as having a limit for toxics, the entire industry (i.e., SIC code) was projected to have a potential impact on water quality.

The remaining facilities were classified as potential *de minimis*. Based on available information, there is no evidence that any facility in the industries so classified would cause a significant water quality problem.

## Confirmation of Classification

Once a facility is identified as potential *de minimis*, site-specific criteria should be applied to confirm a facility as *de minimis* or *non-de minimis*. Such an effort is appropriate, but beyond the scope of this report. The following criteria are currently in use by the Agency's Office of Wastewater Enforcement and Compliance (OWEC) to designate an industrial discharge as major or minor. The criteria are based on an assessment of six characteristics of a facility's discharge (Appendix F). Generally, permitting agencies should already have available adequate information from permit applications to determine final status.

- **Toxic Pollutant Discharge:**

  Are toxics present in the discharge?

- **Flow/Stream Flow Volume:**

  (1) Does the quantity and type of wastewater discharge alone indicate a potential significant impact?

  or

  (2) Does the dilution capacity of the receiving stream, in addition to the quantity and type of discharge, indicate a potential significant impact?

- **Conventional Pollutants :**

  Do the loads (or concentration) of oxygen-demanding (BOD, COD, TOC etc), total suspended solids (TSS), and ammonia ($NH_3$, TKN) pollutants indicate a potential significant impact?

- **Public Health Impact:**

  Is a public drinking water supply located within 50 miles downstream of the effluent discharge?

- **Water Quality Factors:**

  Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream or has a wasteload allocation been assigned to the discharge? Is the receiving water in compliance with the applicable water quality standards for pollutants that are water quality limited in the permit? Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

- **Proximity to Near Coastal Waters:**

  Does the facility discharge to near coastal waters or the Great Lakes? Does the facility discharge to one of the estuaries enrolled in the National Estuary Protection Program or discharge any of the pollutants of concern into one of the Great Lakes areas of concern?

## SOURCES OF DATA

Data used in this assessment were compiled from various EPA data bases and sources:

**Permit Compliance System (PCS), December 1987:** A computerized management information system for tracking permit, compliance, and enforcement status data for the NPDES under the Clean Water Act (CWA). The PCS data base is the national inventory for NPDES permit issuance and compliance/enforcement data. The Agency is required by law (PL 92-500) to maintain this inventory and to ensure its integrity. The data in the PCS data base were initially loaded by EPA several years ago. Currently, data may be entered or edited by the Regions and States.

**Industrial Facilities Discharge File (IFD), December 1987:** A comprehensive data base of industrial and municipal point source dischargers. The data base includes general information about each facility, including discharge and location information, Standard Industrial Classification (SIC) codes, and categorization of process and discharge type. PCS was used to identify NPDES permitted facilities to be included in the IFD file. NPDES permits were used to provide general information, and various State and local agencies provided additional and more recent information. The Needs Survey was used to add information on existing Publicly Owned Treatment Works (POTWs). Updates are made by EPA Headquarters as needed.

**REACH File:** A digital data base of streams, lakes, reservoirs, and estuaries divided into segments called "reaches." Each of the 68,000 reaches included in the file is uniquely identified by an 11-digit reach number. The data base includes stream names, open-water names, stream and shoreline traces, and mileage information. EPA Headquarters is adding new reaches to increase the utility of the REACH File for data integration and water quality analyses.

**GAGE File:** A data base containing information on approximately 36,000 stream gaging locations throughout the United States. Information includes the location of gaging stations, types of data collected, frequency of data collection, media in which data are stored, identification of the collecting agency, and mean and annual flow and 7Q10 low flow, where available. These stations are considered to have the longest period of record of natural flow. Updates are made by EPA Headquarters as needed.

**EPA Regional and State Permitting Offices:** Supporting information was obtained from the ten EPA Regional Permitting Authorities and nine State permitting agencies (Maine,

New Jersey, Pennsylvania, Kentucky, Wisconsin, Texas, Missouri, California, and Washington) recommended by the EPA Regional Offices.

**Additional Sources:**

- 1972 Standard Industrial Classification Manual
- Federal Effluent Limitation Guidelines and Standards
- National Enforcement Investigative Center in Denver, Colorado
- 1985 Report to Congress on the Discharge of Hazardous Waste to Publically Owned Treatment Works (Domestic Sewage Study)
- Engineering and Analysis Division

## CLASSIFICATION PROJECTIONS

The following section summarizes the classification of potential *de minimis* discharges. Data are projected nationwide based on the four major categories: primary industrial, sewage treatment, unknown, and secondary. A total of 893 facilities were projected to be potentially *de minimis* (Figure 2-3). As mentioned previously, the data base supporting this analysis is extremely limited. Because the data on most minor facilities are limited, entire groups of dischargers were screened out from the category of potential *de minimis* if there was reason to conclude that a group of permittees contained at least a reasonable number of dischargers that could not be considered *de minimis*. The Agency approached the *de minimis* classification in this manner to avoid overestimating the number of *de minimis* discharges. As a result, the projected number of potential *de minimis* discharges may be underestimated; some facilities that were categorically excluded could be

Figure 2-3

# Classification of Potential *De Minimis* Discharges

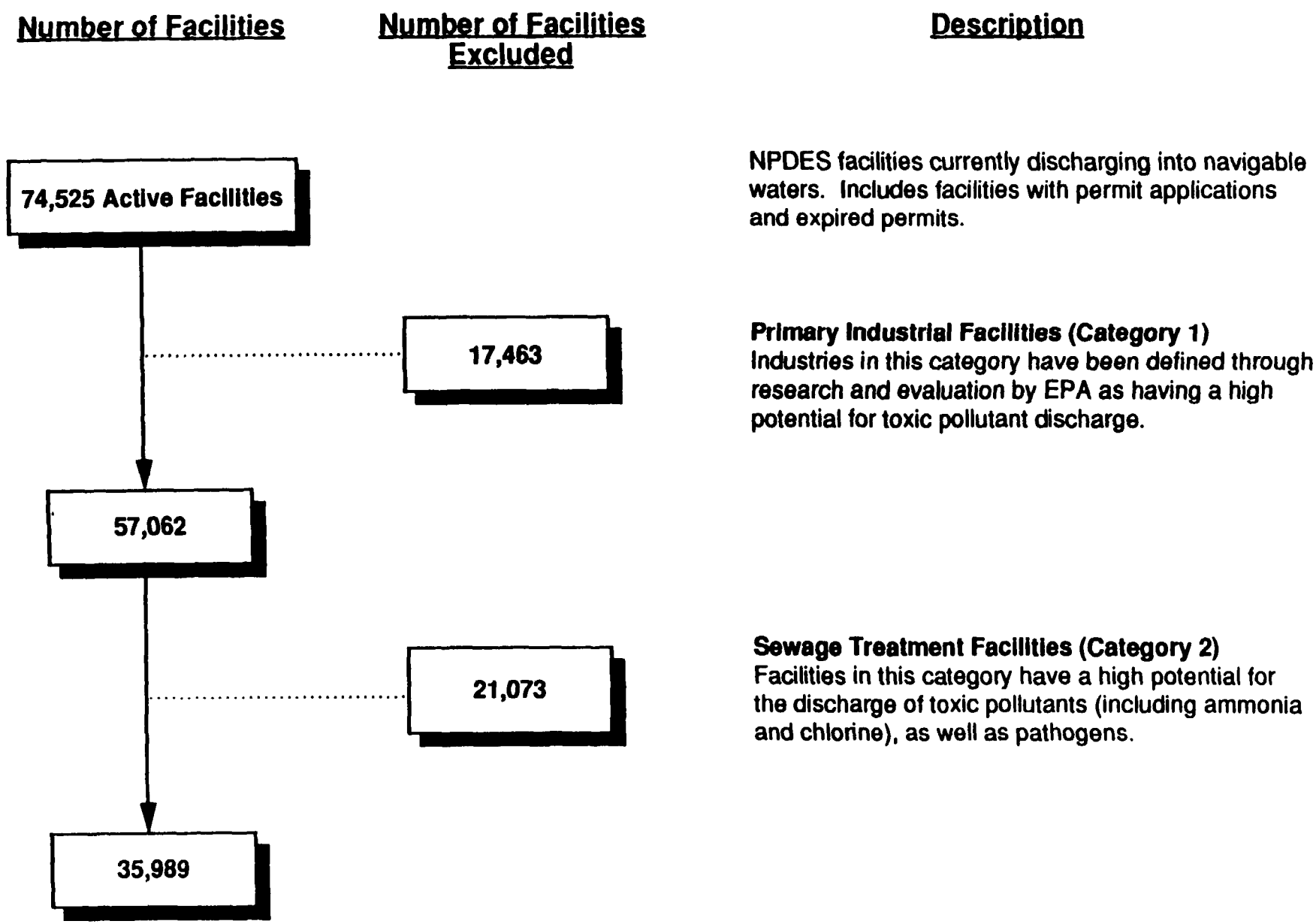
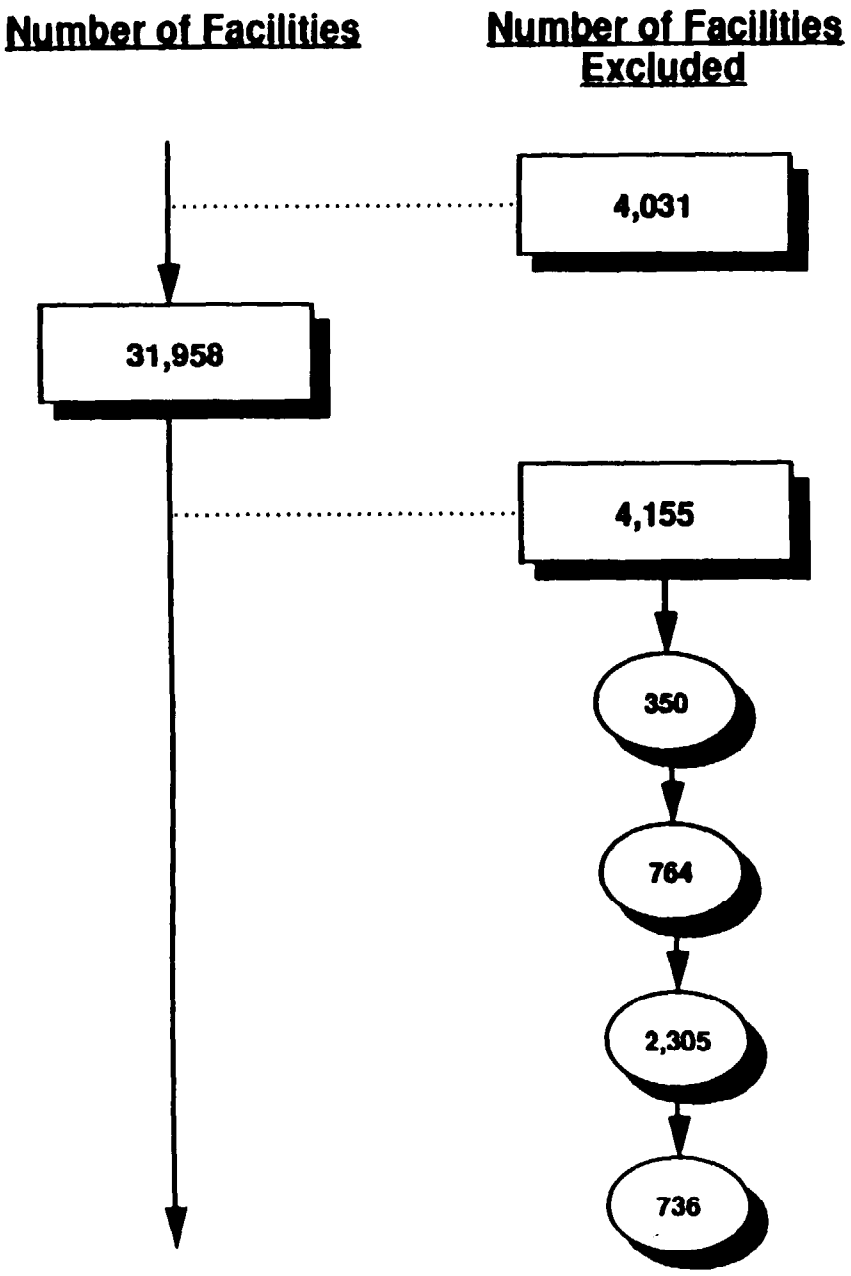


Figure 2-3

# Classification of Potential *De Minimis* Discharges (cont.)




**Description**

**Unknown Facilities (Category 3)**
Facilities classified as unknown could not be classified in any industry, and, therefore, had an unknown potential for discharges containing toxic pollutants.

**Secondary Facilities (Category 4)**

**Facilities with Significant Potential for Toxics**

**NEIC Facilities:**
Facilities identified through industrial evaluations completed by the National Enforcement Investigative Center that defined the probable discharge of toxic pollutants from an industry based on assignment of toxicity indices.

**Effluent Limitations:**
Facilities in industries regulated by Federal effluent limitation guidelines or standards for toxic pollutants.

**DSS:**
Facilities in industries identified in the Domestic Sewage Study as having a high potential for toxic discharge.

**EAD:**
Facilities in industries currently under evaluation by EAD.

Figure 2-3

## Classification of Potential *De Minimis* Discharges (cont.)

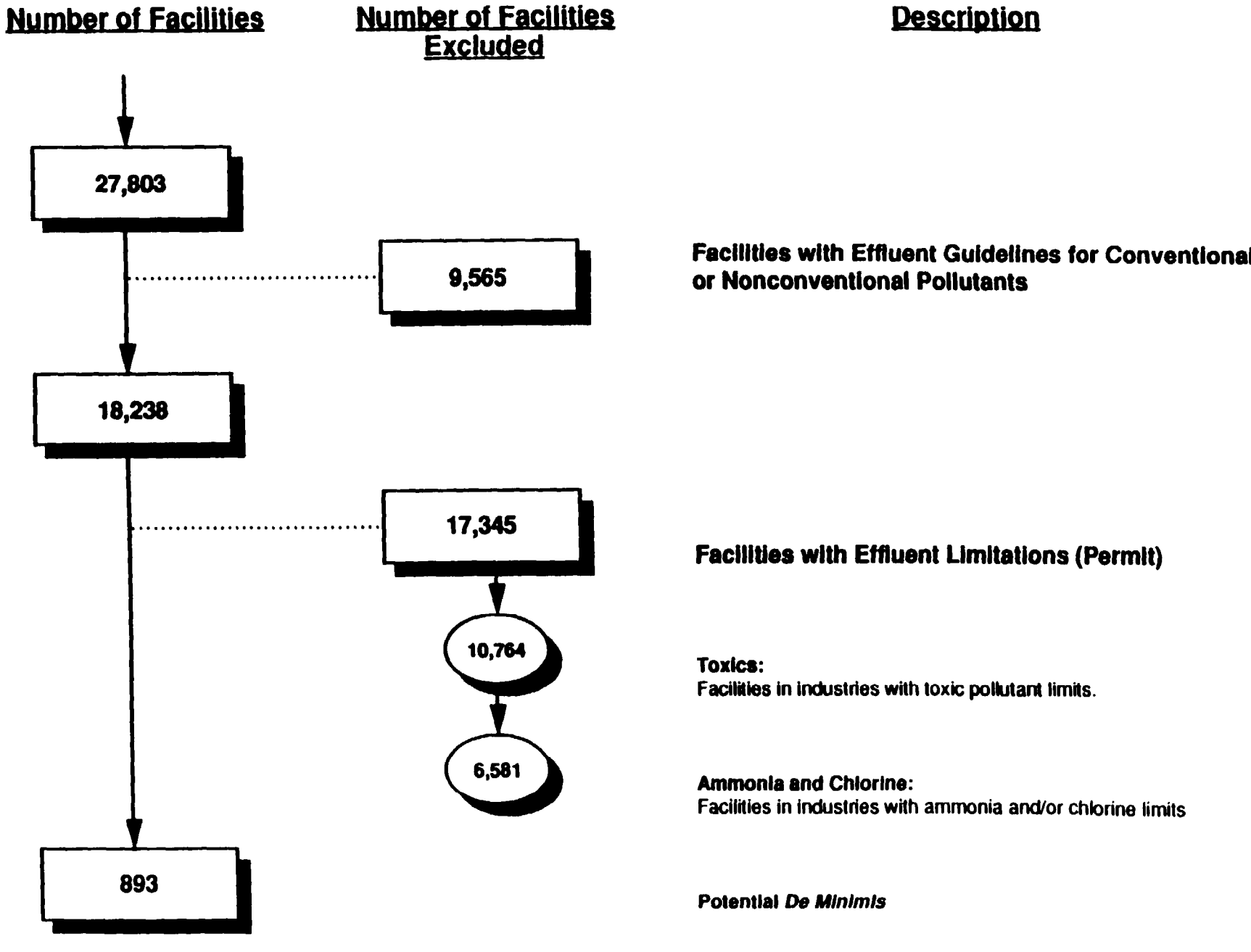
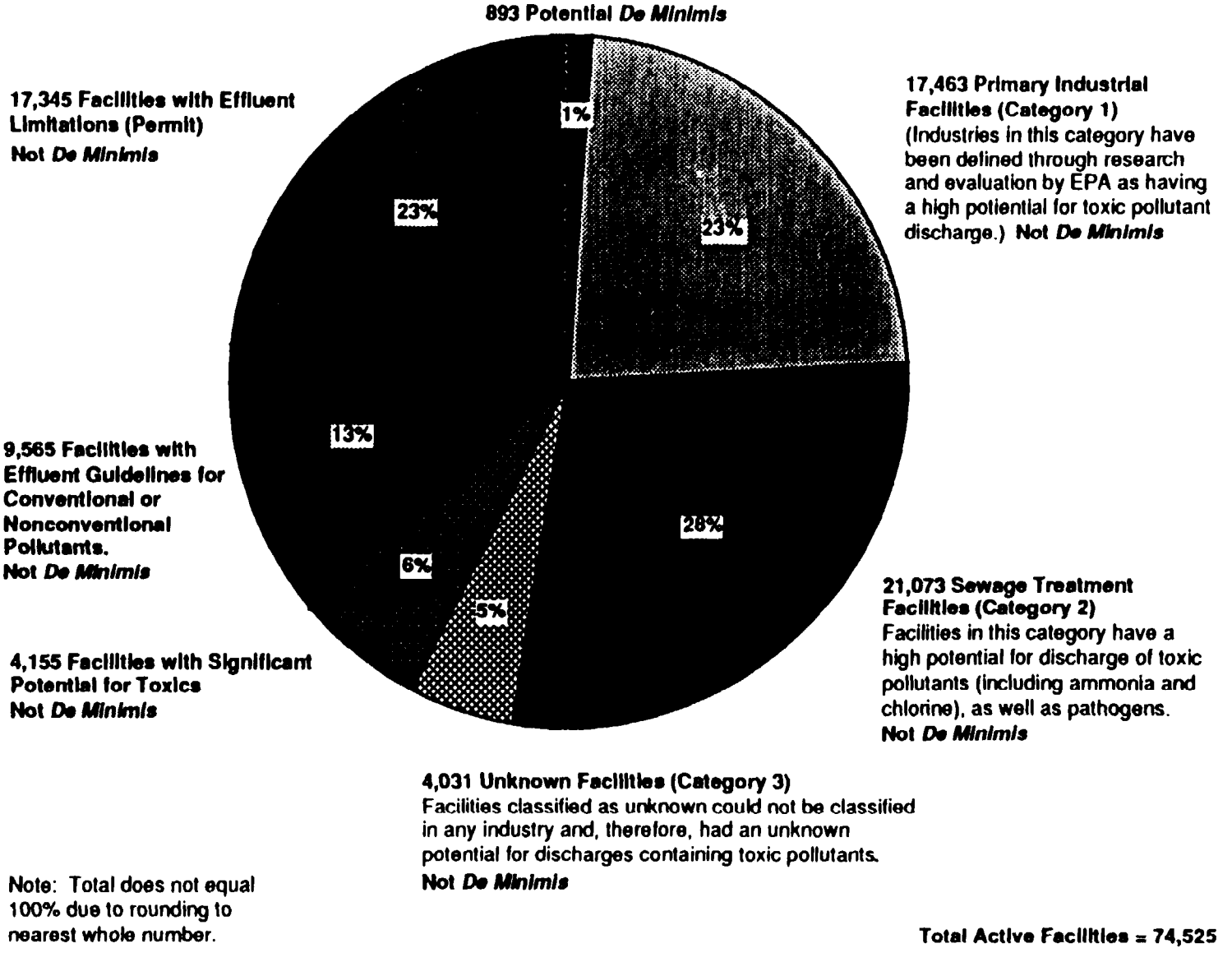


Figure 2-3

## Classification of Potential *De Minimis* Discharges (cont.)




Note: Total does not equal 100% due to rounding to nearest whole number.

determined to qualify as *de minimis* if it were possible to examine them on a case-by-case basis.

**Primary Industrial Facilities (Category 1)**

Out of a total of 74,525 active NPDES facilities, 23.4 percent or 17,463 facilities were classified as primary industrial. Approximately 16,222 of the facilities were identified as having process wastewater discharges or incomplete data and were excluded from *de minimis*. The remaining 1,241 facilities were identified as having only noncontact cooling discharges and were also excluded from *de minimis* because of the potential for contamination with algicides and slimicides.

**Sewage Treatment Facilities (Category 2)**

The 21,073 facilities classified as sewage treatment (SIC 4952) account for 28.3 percent of all active NPDES facilities. All sewage treatment facilities were excluded from *de minimis*.

**Unknown Facilities (Category 3)**

Facilities classified as unknown (4,031) account for 5.4 percent of all active NPDES facilities. Such facilities could not be classified in any industry and, therefore, had an unknown potential for discharges containing toxic pollutants. All unknown facilities were excluded from *de minimis*.

**Secondary Facilities (Category 4)**

Secondary facilities represent the largest (43 percent) single category of all active NPDES facilities. The 31,958 facilities identified as secondary facilities were further classified into four groups:

1. Facilities with a significant potential for toxics in their discharge - 4,155 facilities (Appendix G).

2. Additional facilities regulated by Federal effluent guidelines for conventional or nonconventional pollutants - 9,565 facilities (Appendix H).

3. Facilities in industries classified as "all others" with effluent limitations (permits) for any toxics, as well as ammonia or chlorine - 17,345 facilities (Appendix I).

4. Facilities projected to be potential *de minimis* - 893 facilities (Appendix J).

In Groups 1 and 2, 13,720 facilities identified with process wastewater discharges or with only noncontact cooling water discharges were excluded from *de minimis*. In Group 3, all facilities (17,345) were excluded.

The remaining 893 facilities were classified as potential *de minimis*. Based on available information, there is no evidence that such facilities would cause a significant water quality problem.

An indeterminate number of minor discharges may be informally recognized by the permitting authority as *de minimis* discharges, even though they belong to a category of facilities that was screened out through the classification scheme used in this report. This subset of minor discharges bears little regulatory burden. Once the initial NPDES permit of

such discharges is issued, it may be administratively extended for a lengthy time before reissuance, while the permitting agency concentrates on major discharges. These minor discharges may also be covered by general permits.

**Summary of Potential *De Minimis* Facilities**

A total of 893 facilities are projected nationwide to be potential *de minimis*, accounting for 1.2 percent of all active NPDES facilities. Once identified, potential *de minimis* facilities would be subject to site-specific criteria to confirm the facility as *de minimis*. The level of regulation imposed on a facility confirmed as *de minimis* may be a function of the permitting agency's degree of concern. The available regulatory options currently employed for the permitting of discharges, as well as other potential regulatory options that have been compiled by the Agency, are presented in the following chapter, Regulation of *De Minimis* Discharges.

## Chapter Three

# REGULATION OF *DE MINIMIS* DISCHARGES

Discharges that have been determined to be *de minimis* based on a facility's industrial and effluent characteristics are currently subject to the same regulatory burden as all discharges. However, alternative regulations that would reduce the regulatory and administrative burden to the regulatory agencies, as well as to industry, have been recommended to the Agency. This chapter provides a discussion of (1) regulatory options that are currently employed for the permitting of discharges, (2) other potential regulatory options that have been recommended, and (3) a technical evaluation of the various options. The standard permit program (including model permits) and the General Permit Program currently exist under Clean Water Act legislation and involve certain permitting steps ranging from application to compliance monitoring and inspection. Other potentially applicable regulatory options include ten-year permits, over-the-counter permits, exclusion by waiver, and the national rule approach. These options may involve reduced or modified permitting steps to lessen the permitting burden. Table 3-1 presents the steps involved in these permitting procedures, which are discussed in detail in the following sections.

## EXISTING REGULATIONS

The National Pollutant Discharge Elimination System (NPDES) "requires permits for the discharge of pollutants from any point source into waters of the United States," except as provided in Section 404 of the CWA, which regulates dredge and fill activities. Currently, two regulatory approaches exist for NPDES permitting agencies (EPA Regions or States) to meet this requirement. These options are the Municipal and Industrial Permit Program (standard NPDES permit program including model permits) and the General Permit Program.

Table 3-1.
Steps Involved in Potential De Minimis Regulatory Options

| Regulatory Steps | Standard NPDES Permit and 10-Yr Permit | | | Model Permit | | | General Permit | | | Over-the-Counter Permit | | | Exclusion by Waiver | | | National Rule | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PM | PA | EH | PM | PA | EH | PM | PA | EH | PM | PA | EH | PM | PA | EH | PM | PA | EH |
| 1. Pre-application discussion | P | P | | P | P | | | | | R | R | | P | P | | | | |
| 2. Permit application | R | | | R | | | P-May require a Notice of Intent | | | R | R-Abbreviated process | | P-May require a Notice of Intent | | | P-May require a Notice of Intent | | |
| 3. Application processing | | R | | | R | | | | | R | R | | | P | | | P | |
| 4. Development of a draft permit | | R | | | R | | | R | | | P-Could be bypassed | | | | | | | |
| a) Effluent limits | | R | | | P | May have to be altered to fit indiv. facil. | | R | One permit covering a designated group of dischargers | | | | | | | | | |
| b) Monitoring requirements | | R<br>R | | | P | | | R | | | | | | | | | | |
| c) Standard conditions | | R | | | | | | R | | | | | | | | | | |
| d) Special conditions | | P | | | P | | | P | | | | | | | | | | |
| 5. Statement of Basis | | R-Unless a fact sheet is required (EPA only) | | | R-Unless a fact sheet is required (EPA only) | | | | | | | | | | | | | |
| 6. Fact Sheet | | P-For major fac. only | | | P-For major fac. only | | | R | | | | | | | | | | |
| 7. Headquarter Review | | | | | | | | | R-Also Region Review for State permits | | | | | | | | | P |
| 8. Public Notice | | R | | | R | | | R-Only for the draft permit (1 public notice) | | | P-Bypass would require a statutory change) | | | P | | | R-For rule | |
| 9. Public Hearing | | P | | | P | | | P | | | P | | | P | | | P | |
| 10. Permit Issuance | | R | | | R | | | R | | | R | | | | | | R-A rule stating coverage & criteria | |

Table 3-1
Steps Involved in Potential De Minimis Regulatory Options

| Regulatory Steps | Standard NPDES Permit and 10-Year Permit | | | Model Permit | | | General Permit | | | Over-the-Counter Permit | | | Exclusion by Waiver | | | National Rule | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PM | PA | EH | PM | PA | EH | PM | PA | EH | PM | PA | EH | PM | PA | EH | PM | PA | EH |
| 11. Administrative Record | | R-For EPA-issued permits | | | R-For EPA-issued permits | | | R-For EPA-issued permits | | | P | | | | | | R-For rule | |
| 12. Discharge Monitoring Reports | R | | | R | | | R | | | R | | | | | | P | | |
| 13. Compliance Monitoring & Inspection | | P | | | P | | | P | | | P | | | | | | P | |

KEY: PM - Permittee
PA - Permitting Agency
EH - EPA Headquarters
P - Potential Step
R - Required Step

As of September 1991, 39 States and Territories have been authorized to issue permits under the standard NPDES program. In addition, 28 of the 39 States and Territories have been approved to administer general NPDES permits (See Appendix K). A Federal Facilities Program and a Pretreatment Program are also a part of the NPDES program authority, but do not include additional means by which facilities can be permitted.

**Standard NPDES Permit**

The standard NPDES permit is the most commonly used permitting procedure and involves application filing, application processing, developing a draft permit, formulating a statement of basis (or fact sheet), participation of the public, and issuing a final permit. Slight modifications to this procedure are used for both municipal and industrial facilities. All standard permits must contain effluent limits, monitoring requirements, and standard conditions, as well as special permitting conditions. The duration of a standard permit is a maximum of 5 years.

The steps involved in the standard permit program are described below:

**Application:** Filing information is submitted by a permittee for issuance or renewal of a permit on prescribed EPA or State application forms. Information may vary according to the type of discharge, but generally contains facility location, operations, types of discharge, a listing of related permits, a topographic map, outfall location, a line drawing of water flow, design flow information, production capacity, and effluent characteristics (40 CFR 122.21).

**Application Processing:** Processing a permit application involves the determination of whether the application is complete and accurate by the permitting agency. This process

may involve the review of discharge monitoring reports (DMRs) and effluent limitation guidelines, and direct correspondence with the permittee.

**Development of a Draft Permit:** A draft permit is the core of the permitting process and requires considerable time and effort to complete. It involves the following four steps: (1) determination of effluent limits based on EPA effluent limitation guidelines, water quality considerations, best professional judgment (BPJ), or a combination of these methods; (2) development of monitoring requirements, consisting of parameters to be monitored, monitoring points, frequency, and types of sampling; (3) inclusion of standard conditions, which support the actual effluent limits by delineating legal, administrative, and procedural requirements of the permit, through the use of definitions pertaining to the permit, testing procedures as defined by EPA, requisites for records retention by the permittee, notification requirements for monitoring data and noncompliance, permittee responsibilities, and reopener clauses, as well as reference to applicable Federal and State laws; and (4) addition of special conditions that apply to the specific dischargers and may include compliance schedules, biomonitoring requirements, best management practices (BMPs), and other site-specific items.

**Fact Sheet or Statement of Basis:** A fact sheet is required for major dischargers (facilities designated as major by permitting authorities) and includes factual, legal, methodological, and policy data considered in the draft permit. A segment of these data is the statement of basis, which is required for EPA-issued permits that do not require fact sheets (permits for minor dischargers). The statement of basis is a brief summary of the basis for the draft permit conditions (40 CFR 124.8 and 124.56).

**Public Notice, Comment, and Hearings:** Public notice is the vehicle for informing interested parties of the permitting of a new facility and gives an opportunity for comment on

the decisions made in the permit. Thirty days of public notice are required for draft NPDES permits. The notice must be submitted in at least two ways: (1) the publication of a notice in a daily or weekly newspaper within the area affected by the facility or activity (for major permits) and (2) the direct mailing of the notice to various designated parties, including the applicant; any other agency required to issue a Resource Conservation Recovery Act (RCRA) Underground Injection Control (UIC) permit, a RCRA Prevention of Significant Deterioration (PSD) permit, or a CWA Dredge or Fill Discharge (404) permit for the facility; all appropriate government agencies (e.g., U.S. Fish and Wildlife Services, neighboring States, etc.); and users identified in the permit application of a privately owned treatment works (40 CFR 124.10). Public notice must also be submitted in accordance with corresponding State regulations. Comments and requests for hearings may be elicited by public notice. Any interested party may request information, dispute the draft permit, or request a public hearing. The regulatory agency is obliged to respond to all significant comments. The response to a request for a public hearing is based on judgment, and a hearing should be granted by the permitting agency if there is a significant amount of interest expressed during the public comment period.

**Issuance of a Final Permit:** A final permit may be issued after the close of the public participation period, which includes public notice, any public hearing, any extension or reopening of public comment, and permit certification.

**Administrative Record:** For EPA-issued permits, the record must consist of the application and supporting information, the draft permit, the statement of basis or fact sheet (with cited items and calculations), and all other items in the supporting file. The record for the final permit consists of the record for the draft permit, all comments received on the draft permit and corresponding responses, the transcripts of any hearings, and any written

material received at a hearing. Approved States must provide access to all supporting information and must include the fact sheet (if applicable) within this information.

**Discharge Monitoring Reports (DMRs):** DMRs are required to be filed by the permittee on a regular basis (with a duration not to exceed 1 year), as stated in the permit. These reports include parameters specified under monitoring requirements.

**Compliance Monitoring and Inspection:** Compliance monitoring and inspection are additional means of evaluating the effectiveness of the permit and the compliance of the permittee. They include compliance evaluation inspections (CEIs), compliance sampling inspections (CSIs), compliance biomonitoring inspections (CBIs), and operation and maintenance (O&M) inspections.

**Model Permit**

The concept of the model permit is a streamlining of the standard permit. It uses an example permit for a related facility and modifies it to fit the facility in question.

This permitting process is generally used for facilities with similar operations and effluents. Once an original permit is developed for a facility within a category, it can be tailored to fit each discharger within this group. Changes should be minor, encompassing facility name, location, receiving stream, date, effluent limit and monitoring requirements (optional), and qualitative guidelines (optional), including standard conditions and special conditions.

The final permit is identical to a standard 5-year NPDES permit in that it covers one facility, requires complete application information, and is bound to all regulatory requirements set forth in the CWA.

**General Permit**

A general permit is one permit covering multiple dischargers that (1) involve the same or substantially similar types of operations, (2) discharge the same types of wastes, (3) require the same effluent limitation or operating conditions, (4) require the same or similar monitoring, and (5) are deemed to be more appropriately controlled under a general permit than under individual permits. These five criteria must be met prior to the development of a general permit for the class or category of dischargers in question. All facilities must also be within a designated geographical or political boundary.

The General Permit Program is an optional program for States with NPDES authority and must be approved by EPA Headquarters. Permits under this program are still issued, modified, revoked, and reissued or terminated in accordance with the procedures followed for standard NPDES permits, but cover more than one discharger. General permits are ideal for, but not limited to, minor dischargers. Currently, 28 States have general permit authority (Alabama, Arkansas, California, Colorado, Georgia, Hawaii, Illinois, Indiana, Kentucky, Maryland, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Jersey, North Carolina, North Dakoka, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming). Also, EPA Regional Offices can issue permits in 16 States or Territories that do not have NPDES authority (Alaska, American Samoa, Arizona, Florida, Guam, Idaho, Louisiana, Maine, Massachusetts, New Hampshire, New Mexico, Oklahoma, Puerto Rico, South Dakota, Texas, and Washington, DC).

To develop a general permit, a permitting agency would identify a category of discharges that appear to be applicable for coverage under a general permit. Available information on these types of discharges would be studied to make certain that the five aforementioned criteria are met for the category. If the criteria are met, development of a general permit can proceed with in-depth study of the category using any applicable effluent guidelines, industrial permit abstracts, treatability manuals, guidance documents, etc. These tools are used to develop a draft permit that contains the same provisions as an individual NPDES permit (e.g., effluent limits, monitoring requirements, and standard conditions). Sometimes effluent limits and monitoring requirements are tiered so as to pertain to specific subclasses within a general permit category. Once a draft general permit is completed, it must undergo required reviews and public notices.

A draft general permit must be reviewed by the EPA Regional Office only if it is a State-issued permit. The EPA Headquarters Office of Wastewater Enforcement and Compliance (OWEC) must review all draft and final offshore general permits, but may request at any time to review all other categories of general permits. Regionally issued general permits can be issued only within the 16 States or Territories that do not have NPDES permit authority. Public notice for EPA-issued permits need only be published in the Federal Register and where required by State statutes. Public notice for State-issued general permits must be published in a daily or weekly newspaper, distributed to interested parties, and provided as required by State statutes.

A final general permit may be issued after the close of the review and public participation period, and permit certification. The final permit is subject to the same public notice requirements as the draft general permit.

Upon final issuance of a general permit, coverage of individual potential permittees can be issued to any discharger meeting the criteria for the given permit category without application (automatic coverage) or with an abbreviated application (Notice of Intent). Currently, EPA highly recommends the use of a Notice of Intent to confirm that a facility is applicable for coverage under the general permit (i.e., to overcome the presumption that an individual permit is required), and to allow for tracking and record keeping of facilities covered. A Notice of Intent (NOI) generally requires the name, address, and telephone number of the permit applicant; the location of the facility; the name of the responsible on-site official; and the name of the receiving water. Other information that may be required is qualitative process and effluent descriptions and a justification for coverage under the general permit. The Notice of Intent generally does not require the detailed process descriptions, effluent sampling and analysis, and other information encompassed by standard applications. However, facilities covered by general permits are bound to the same self-reporting requirements that apply to facilities issued standard NPDES permits. Facilities must submit discharge monitoring reports (as specified by the general permit) with a duration not to exceed 1 year.

## POTENTIAL REGULATORY OPTIONS

In addition to the existing regulatory options, three other options (originating from Agency, Region, or State suggestions) are presented as potential means to regulate *de minimis* discharges. These options may require statutory changes. Closer legal and technical scrutiny would be required if further consideration of these options is deemed warranted.

### Ten-Year Permit

The ten-year permit extends the term of a standard NPDES permit from 5 to 10 years (statutory change). This would delay the reissuance of permits for minor facilities so that the backlog of expired and unpermitted facilities could be reduced.

### Over-the-Counter Permits

Over-the-counter processing is currently used in New Jersey for minor stream encroachment, sewer extension, and riparian permits (non-NPDES permits) that meet specific criteria. Applicants can receive same-day or 24-hour service. Permit applications are handled by appointment only, and requirements are essentially the same for all projects. A pre-application phone conversation is generally required.

Application, review, and approval of minor permits occur on the same day at the same location. This process could be applied to *de minimis* discharges in one of two ways: (1) by developing a draft permit and still incorporating public notice or (2) by issuing a final permit and eliminating public notice (statutory change).

### Exclusion from the NPDES Permit Program

Facilities excluded from the NPDES permit program would not be obligated to obtain or be regulated by a NPDES permit. Under an exclusion by waiver process, pre-application discussion and/or application (Notice of Intent) may be required to exclude discharges on a site-by-site basis.

**National Rule**

The national rule approach is the concept of devising a law or rule covering a specific category of *de minimis* discharges. The rule would present qualifying criteria for the types of facilities or activities that would be covered under the rule, as well as guidelines or national standards that must be met (similar to EPA National Ambient Air Quality Standards). No application or permitting, as such, would have be to completed; however, if a facility were found to be in violation of the rule, it would be required to be permitted under the standard NPDES permit program. EPA would follow standard administrative procedures for developing a rule, including proposal, public notice and comment, formal record, and promulgation.

## EVALUATION OF POTENTIAL REGULATORY OPTIONS

The evaluation of each potential *de minimis* regulatory option considered the technical effectiveness of the option; that is, whether or not the concept of the option is feasible to implement. Also, the question of whether an option is workable and advantageous to permitting agencies, permittees, and the Agency was addressed. Regulatory options that will involve statutory changes were noted; however, an analysis of legal issues is not within the scope of this study and is not discussed.

The evaluation of technical effectiveness is discussed for all of the options, with the exception of the standard NPDES permit. The standard permit (in conjunction with model permitting) is the current method of permitting utilized by all Regional and State permitting agencies. This process (and its corresponding burden to regulatory agencies) is the underlying basis for the *De Minimis* Study and serves as a baseline of comparison for the

other permitting options. An evaluation of potential *de minimis* regulatory options is presented in Table 3-2 and is discussed in detail below.

**Model Permit:** The model permit is a concept that has been promoted by the Agency in various forms. One form is the "NPDES Model Permit Format," which describes the standard form of a NPDES permit with standard and special conditions written in a prescribed format. Another form is "The NPDES Permit Abstracts," which outlines examples of actual permits that can be used as models for various industries. Currently, permitting agencies are using these streamlining tools. Some agencies have entered boilerplate language and qualitative guidelines onto word processors and modify this format as appropriate. It is also common practice to tailor a new discharge permit using another similar permit on file. Because this concept is so widely used and is merely a streamlining of the standard process, Regional and State agencies feel that it is not an option that would significantly reduce the administrative burden associated with the regulation of *de minimis* discharges.

**General Permit:** As stated previously, the general permit is currently utilized by a number of Regions and approved States (Appendix K). The consensus on the applicability of this option to *de minimis* discharges is positive, and general permits have had noted success in reducing burden for permitting agencies. Use of the general permit by permitting authorities allows the coverage of moderate to large numbers of facilities with one permit action, rather than multiple actions, and allows for new industries entering the area and meeting general permit criteria to be covered without new permit action. Where large numbers of related facilities contribute to permit backlogs, general permits can reduce this backlog, with substantial reductions in resources and costs when compared to individual permitting. In addition, potential savings can be realized by having to process only Notices of Intent (as opposed to complete applications) and not having to issue individual public

Table 3-2
Evaluation of Potential De Minimis Regulatory Options

| Option | Advantages | Disadvantages |
|---|---|---|
| 1. Model Permit | · Does not require a statutory change.<br>· Can be used on word processors.<br>· Generally involves minor permit changes. | · Requires complete application and application processing.<br>· Is merely a modification of the standard permit.<br>· Is currently being used; would not reduce the burden associated with the permitting of de minimis facilities.<br>· An individual permit must be processed for each discharger. |
| 2. General Permit | · Does not require a statutory change.<br>· Covers multiple dischargers under one permit.<br>· May not require complete individual applications or public notice.<br>· Covers the same areas as a standard permit.<br>· Facilities may be permitted under the standard NPDES program if they are not meeting general permit requirements.<br>· Requires less time and money to process a facility.<br>· Reduces permit issuance backlogs.<br>· Can cover discharges previously unpermitted due to resource constraints.<br>· May automatically cover new discharges. | · Currently in use by only 17 States.<br>· Requires Regional and/or EPA Headquarters review.<br>· May be difficult to apply to waters with widely different water quality standards. |
| 3. Ten-Year Permit | · Would delay the reissuance of permits for minor facilities so the backlog of expired and unpermitted facilities could be reduced.<br>· May free up more resources for compliance, monitoring, and inspection.<br>· May involve abbreviated applications. | · Requires a statutory change.<br>· Too many regulatory changes may occur over the extended term.<br>· Term may be too long for process-oriented discharges.<br>· Inspection still may be required.<br>· Effluent change could occur over this period. |
| 4. Over-the-Counter Permits | · Could involve abbreviated application and permit issuance.<br>· Would reduce the time required for permit processing.<br>· Would still yield an individual permit. | · May require a statutory change.<br>· May eliminate public notice.<br>· May cause Regional/State procedural problems. |
| 5. Exclusion by Waiver from the NPDES Program | · May transfer regulation for some types of discharges to more appropriate agencies.<br>· May eliminate loopholes for noneffluent-type discharges.<br>· Has been shown to reduce resources required to conduct an effective discharge regulatory program (CA land discharges). | · Requires a statutory change.<br>· May eliminate all means of regulation.<br>· Would require case-by-case designation.<br>· May promote the impairment of receiving waters. |

Table 3-2
Evaluation of Potential De Minimis Regulatory Options (continued)

| Option | Advantages | Disadvantages |
|---|---|---|
| 6. National Rule | · Would instantaneously provide regulation for unpermitted discharges.<br>· Would involve a Notice of Intent or no application process.<br>· Dischargers could be recaptured under the standard permit program if needed. | · Requires confirmation as de minimis before site-specific investigations are conducted.<br>· Probably requires statutory change .<br>· May require inspections and possibly audits.<br>· May require monitoring by facilities.<br>· May cause difficulty in compliance and enforcement. |

notices for each discharger. Although the general permit has noted advantages, some potential drawbacks do exist. The development of a general permit is a rulemaking that requires substantial data gathering on the part of the permitting agencies rather than the applicants. General permits may be difficult to issue in areas with varying State standards, and a significant number of similar discharges must exist within a category for a general permit to be administratively worthwhile.

In addition, during the survey conducted for this study, both Regional Offices and State agencies expressed concern that, although the General Permit Program appears to be an appropriate regulatory option for minor facilities, streamlining State delegation and EPA review of draft permits is necessary to maximize its potential (Appendix D).

**Ten-Year Permit:** The idea of a ten-year permit provoked mixed reactions from Regional and State agencies during the survey conducted for this study. The basis of the long-term permit is to extend the reissuance dates of many minor permits so that the backlog of these permits and unpermitted discharges could be reduced. Note that, pursuant to the Administrative Procedures Act, 5 U.S.C. 558 (c), an otherwise expired permit is automatically extended until the effective date of the new permit provided that a timely and sufficient permit application is filed. Statutory change increasing the maximum life of permits may not have a significant effect on the frequency at which permits for *de minimis* discharges are re-issued, but it could significantly reduce the opportunity to incorporate regulatory changes when necessary (e.g., effluent guidelines or State water quality standards) and would delay receipt of the detailed information required in permit applications. Because of the extended life of the permit, it would be essential that the discharge be of a truly *de minimis* nature, so that the potential for environmental impact would remain low over the term of the permit.

Some specific concerns expressed by various agencies included the following: (1) the 10-year term may be too long for process-oriented technologies, which change more frequently (Appendix D); (2) inspection of facilities or activities should still remain a part of the regulatory process; and (3) the ten-year permit may not easily be integrated into all permitting programs.

**Over-the-Counter Permits:** Over-the-counter processing could reduce the expected burden of permitting *de minimis* facilities in two ways. The application submittal and processing for *de minimis* facilities could be abbreviated. Permittees could come to the permitting office following a pre-application phone conversation, and a draft permit could be developed at that time using a standardized permit format. If public notification could be bypassed for these facilities or activities, a final permit could be issued at the same time. Bypass of public notification would require a statutory change. Publication of a list of permittees covered by over-the-counter permits could be an alternative to public notice.

In the survey conducted for this study, Regional and State permitting agencies felt that this option may be applicable for only a few types of *de minimis* discharges and may cause procedural problems (Appendix D).

**Exclusion from the NPDES Program:** Industry representatives who originally proposed the concept of *de minimis* to Congress believed that many types of discharges could be excluded from the NPDES system because they have effluents that contain nothing that could degrade the water quality of the receiving waters. As originally stated in this report, it is the belief of the Agency and permitting agencies alike that all discharges (particularly process-oriented discharges) to surface waters may have an environmental impact at one time or another because of constantly changing process, climatic, and ecological parameters. Still, some Regional and State permitting offices feel that there are certain instances or

certain groups of discharges that may be excluded from the NPDES program. Most permitting agencies mentioned that a case-by-case designation of discharges or activities that could be excluded from NPDES would be the only appropriate means of utilizing this option, and that a means to recapture discharges under the NPDES program, should the situtation change, must be available (Appendix D).

The State of California uses a system of exclusion for non-NPDES land discharges. It allows site-specific or categorical exclusion of certain types of discharges, as well as a clause that makes the exclusion conditional. The program is described as follows:

- **Exclusion by Waiver:** The permitting agency has a statutory obligation to prescribe discharge requirements (permits), except where a waiver is not against the public interest; and the agency stipulates that any waiver of application and permitting shall be conditional and may be terminated at any time by the permitting agency. A waiver may be used when it is not against public interest; it enables the agency resources to be used more effectively; and discharges fall within one of the following categories: (1) the discharge is effectively regulated by other public agencies; (2) the discharge is effectively regulated by the facility pursuant to State regulations or guidelines; or (3) the discharge does not adversely affect the quality or the beneficial uses of the waters of the State.

**National Rule:** A national rule approach would allow the instantaneous regulation of large groups of *de minimis* discharges by coverage under a general rule. The rule would state the coverage of specified activities and corresponding national standards that would apply to the facility. A notice of intent may or may not be a part of the permit-by-rule process. Although this process would not yield an individual permit for facilities covered by the rule, it would provide a means of regulation for many *de minimis* activities that currently cannot be permitted because of resource and financial restraints of the permitting agencies.

Two variations on the concept of national rule have been developed by the Agency and are presented as follows:

- **The Self-Elimination Process:** After the Agency has published definitive guidance on the characteristics of a *de minimis* discharge, the facility would submit an NPDES application (or Notice of Intent), which includes sworn affidavits affirming the facility or activity as a confirmed *de minimis* discharge. The Region/State would accept this evaluation and certify *de minimis* status. Facilities would not be required to report monitoring data, but would be subject to unannounced inspections. If inspection shows failure to hold to *de minimis* standards, the owner or operator of the facility or activity would be liable for fines and/or jail sentences. Should the facility report itself in the event of an unforeseen accident, the regulator would have the option of either returning it to *de minimis* status or requiring standard NPDES status.

- **The No Response Process:** After the EPA definitive guidance is published, the facility would identify itself as *de minimis*. The choice of the "no response" mode may carry a specific schedule of monitoring on the part of the discharger, but the monitoring records would not be submitted to Regional or State offices unless they are requested. This request could be sudden, unannounced, and require immediate hand-over. All covered facilities or activities would be subject to unannounced inspections. The punishment for violations would be the same as described in the above option.

## Chapter Four

# UNIT RESOURCE AND COST COMPARISONS FOR POTENTIAL REGULATORY OPTIONS

In this chapter, the unit (per facility) resources and costs to the permitting agency of the potential regulatory options are assessed and compared to evaluate relative economic feasibility. The national rule approach will not be evaluated since it requires that classes of discharges be confirmed as *de minimis* before any site-specific investigations are conducted. EPA's limited data base prevents this confirmation.

The following topics are discussed: (1) development of a permitting resource model, (2) sources of data used in the analysis, and (3) a comparison of unit cost savings of alternative regulatory options when compared to the standard/model (baseline) permitting procedure. Administrative costs to industry were not evaluated.

## DEVELOPMENT OF PERMITTING RESOURCE MODEL

Using a modification of a North Carolina case study (Appendix M) that includes only secondary discharges, a permitting resource model was developed as a baseline for comparison to other regulatory options. The resources required to perform various permitting steps (in terms of person-hours) represent empirical values relevant to a national analysis; however, generic costs associated with the various permitting steps had to be developed to estimate average national permitting costs and cost savings.

Ten geographically distributed permitting agencies that were contact agencies or work group members were surveyed to determine the average skill levels and salary profiles of

personnel administering the various permitting steps (Table 4-1). Six permitting levels of personnel were identified, along with corresponding base salaries (excluding fringe and indirect costs), for each of the permitting steps. The hourly salary rates were then averaged to derive six national generic costs associated with the various permitting steps. These generic costs were incorporated into the permitting resource model to yield average costs of permitting steps and total costs of permits for secondary facilities using a "minimum reputable standard/model permitting procedure." These data are summarized in Table 4-2 and represent the resources and costs associated with baseline permitting of a secondary facility.

Tables 4-3 through 4-6 are similar tables that incorporate the various steps involved in the four alternative regulatory options (General Permit, Ten-Year Permit, Over-the-Counter Permit, and Exclusion by Waiver), and represent the estimated resources and costs associated with typical scenarios of coverage under these options.

## SOURCES OF DATA

Data used in this assessment were compiled from the sources listed below:

**North Carolina's Department of Natural Resources and Community Development Effort and Cost of Permitting Study, April 1986:** A detailed case study by the State of North Carolina Water Quality Section outlines permitting steps involved in a "minimum reputable standard/model permitting program." Effort, in terms of person-hours, was estimated for each permitting step, and weighted average salaries based on North Carolina

Table 4-1

Development of Average Generic Costs Associated with Various Permitting Steps

| General Title/Permit Steps | Permitting Agency - Hourly Rates | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Region I | NJ | PA | NC | WI | Region VI | MO | Region VIII | CA | WA | | |
| Clerk/Typist (Data Entry) | $7.43 | $6.25 | $7.36 | $5.20 | $8.03 | $7.27 | $5.77 | $7.27 | $8.11 | $8.08 | AVERAGE GENERIC SALARIES: | $7.07===> $7.00 |
| Env. Technician Low (Permit Issuance, Renewals) | $9.00 | $11.85 | $10.22 | $8.25 | $8.65 | $7.27 | $7.49 | $9.00 | $12.98 | $10.36 | AVERAGE GENERIC SALARIES: | $9.44===> $9.50 |
| Env. Technician High or Env. Chemist Low or Env. Biologist Low (Field Inspections, DRM Review, Lab Work) | $13.33 | $11.85 | $11.08 | $10.28 | $12.50 | $11.01 | $9.81 | $15.97 | $13.44 | $11.94 | AVERAGE GENERIC SALARIES: | $12.12===> $12.00 |
| Engineer I Low (Development of Draft Permit) | $14.03 | $14.34 | $11.08 | $12.15 | $11.60 | $11.70 | $11.55 | $16.33 | $13.21 | $12.85 | AVERAGE GENERIC SALARIES: | $12.88===> $13.00 |
| Engineer II Mid (Supervises 3-5 people, Public Hearings) | $15.09 | $15.16 | $14.31 | $14.32 | $14.47 | $16.34 | $13.68 | $18.99 | $20.53 | $14.91 | AVERAGE GENERIC SALARIES: | $15.78===> $15.50 |
| Program Supervisor (Supervises 5-15 People) | $18.99 | $16.73 | $16.33 | $15.13 | $16.78 | $18.99 | $14.26 | $18.99 | $22.50 | $15.28 | AVERAGE GENERIC SALARIES: | $17.40===> $17.50 |

NOTE: Data were gathered by written and phone surveys and represent 1988 base salaries.

Table 4-2

Effort and Cost of Standard/Model NPDES Permitting
(Secondary Facilities)

| Generic Permitting Steps | Cost/Hr | Person-Hr | Cost |
|---|---|---|---|
| Pre-Application Discussion | $13.00 | 4.7 | $61.10 |
| Application Processing | $7.00 | 2.4 | $16.80 |
| Development of a Draft Permit: | | | |
| a) Initial Engineer Review | $13.00 | 9.4 | $122.20 |
| b) Staff Report | $13.00 | 12.6 | $163.80 |
| c) Wasteload Allocation (Level B)* | $13.00 | 6.3 | $81.90 |
| d) Review Monit. Data Bases | $12.00 | 0.6 | $7.20 |
| e) Data Entry | $7.00 | 0.6 | $4.20 |
| f) Final Engr. Rev./Draft Permit | $13.00 | 3.6 | $46.80 |
| Public Notice (Labor) | $7.00 | 0.6 | $4.20 |
| Public Notice (Publication) | | | $50.00 |
| Public Hearing | $15.50 | 54.4 | $843.20 |
| Final Permit Issuance | $9.50 | 0.6 | $5.70 |
| Records/Data Management | $7.00 | 4.4 | $30.80 |
| Compliance Monitoring and Inspection | | | |
| a) 5-Year Composite Inspections** | $12.00 | 99.9 | $1,198.80 |
| b) DMR Review | $13.00 | 0.6 | $7.80 |
| Renewal Notice | $9.50 | 0.6 | $5.70 |
| Supervision† | $17.50 | – | – |
| Total Effort and Cost: | | 146.9 | $1,807.00 |
| If Hearing Is Required: | | 201.3 | $2,650.20 |

*Simple allocation using a package model.
**Does not include chemical laboratory costs.
†Due to difficulty in estimating, omitted from analysis.

Table 4-3

Effort and Cost of Issuing General Permit Coverage
(Secondary Facilities)

| Permitting Steps | Generic Cost/Hr | Person-Hr | Cost |
|---|---|---|---|
| Notice of Intent Processing | $7.00 | 2.4 | $16.80 |
| Data Entry | $7.00 | 0.6 | $4.20 |
| Certification of Coverage (Issuance) | $9.50 | 0.6 | $5.70 |
| Records/Data Management | $7.00 | 4.4 | $30.80 |
| Compliance Monit. and Inspection | | | |
| a) 5-Year Composite Inspections* | $12.00 | 99.9 | $1,198.80 |
| b) DMR Review | $13.00 | 0.6 | $7.80 |
| GP Developmental Costs** | $14.25*** | 9.1 | $129.68 |
| Supervision† | $17.50 | -- | -- |
| Total Effort and Cost: | | $117.6 | $1,393.78 |

* Does not include chemical laboratory costs.

** Average development costs per facility = 600 hours for the development of a non-OCS general permit (EPA workload model)/66 facilities per general permit (based on survey data average - Appendix L) = 9.1 hours.

*** Average of the generic costs for an Engineer I and an Engineer II.

† Due to difficulty in estimating, omitted from analysis.

NOTE: Public notice costs are assumed to be negligible on a per facility basis.

Table 4-4

Effort and Cost of Ten-Year Permitting
(Secondary Facilities)

| Permitting Steps | Generic Cost/Hr | Person-Hr | Cost |
|---|---|---|---|
| Pre-Application Discussion | $13.00 | 4.7 | $61.10 |
| Application Processing | $7.00 | 2.4 | $16.80 |
| Development of a Draft Permit: | | | |
| a) Initial Engineer Review | $13.00 | 9.4 | $122.20 |
| b) Staff Report | $13.00 | 12.6 | $163.80 |
| c) Wasteload Allocation (Level B)* | $13.00 | 6.3 | $81.90 |
| d) Review Monit. Data Bases | $12.00 | 0.6 | $7.20 |
| e) Data Entry | $7.00 | 0.6 | $4.20 |
| f) Final Engr. Rev./Draft Permit | $13.00 | 3.6 | $46.80 |
| Public Notice (Labor) | $7.00 | 0.6 | $4.20 |
| Public Notice (Publication) | | | $50.00 |
| Public Hearing | $15.50 | 54.4 | $843.20 |
| Final Permit Issuance | $9.50 | 0.6 | $5.70 |
| Records/Data Management | $7.00 | 4.4 | $30.80 |
| Compliance Monit. & Inspection | | | |
| a) 5-Year Composite Inspections** | $12.00 | 199.8 | $2,397.60 |
| b) DMR Review | $13.00 | 0.6 | $7.80 |
| Renewal Notice | $9.50 | 0.6 | $5.70 |
| Supervision† | $17.50 | – | – |
| Total Effort and Cost: | | 246.8 | $3,005.80 |
| If Hearing Is Required: | | 301.2 | $3,849.00 |

* Simple allocation using a package model.

** The resources associated with monitoring and inspection are two times that of the standard permit to achieve the same annual levels of inspection over the 10-year term. Does not include chemical laboratory costs.

† Due to difficulty in estimating, omitted from analysis.

Table 4-5

Effort and Cost of Over-the-Counter Permitting
(Secondary Facilities)

| Permitting Steps | Weighted Cost/Hr | Person-Hr | Cost |
|---|---|---|---|
| Pre-Application Discussion | $13.00 | 4.7 | $61.10 |
| Application Processing* | | | |
| Development of a Draft Permit:* | | | |
| a) Initial Engineer Review | $13.00 | 8.0 | $104.00 |
| b) Review Monit. Data Bases | | | |
| c) Final Engr. Rev./Draft or Final Permit | | | |
| d) Data Entry | $7.00 | 0.6 | $4.20 |
| Public Notice (Labor) (Optional) | $7.00 | 0.6 | $4.20 |
| Public Notice (Publication) (Optional) | | | $50.00 |
| Records/Data Management | $7.00 | 4.4 | $30.80 |
| Compliance Monit. & Inspection | | | |
| a) 5-Year Composite Inspections** | $12.00 | 99.9 | $1,198.80 |
| b) DMR Review | $13.00 | 0.6 | $7.80 |
| Renewal Notice | $9.50 | 0.6 | $5.70 |
| Supervision† | $17.50 | – | – |
| Total Effort and Cost: | | 118.8 | $1,412.40 |
| If Public Notice Is Required: | | 119.4 | $1,466.60 |

* Assumes that the over-the-counter process of application processing and permit development can occur in one working day.
** Does not include chemical laboratory costs.
† Due to difficulty in estimating, omitted from analysis.

Table 4-6

Effort and Cost of Exclusion by Waiver
(Secondary Facilities)

| | Generic Cost/Hr | Person-Hr | Cost |
|---|---|---|---|
| Pre-Notice of Intent Discussion | $13.00 | 4.7 | $61.10 |
| Notice of Intent Processing | $7.00 | 2.4 | $16.80 |
| Certification of Waiver | $9.50 | 0.6 | $5.70 |
| Records/Data Management | $7.00 | 4.4 | $30.80 |
| Supervision† | $17.50 | – | – |
| Total Effort and Cost: | | 12.1 | $114.40 |

† Due to difficulty in estimating, omitted from analysis.

data were also included. This study and its corresponding methodology are included in Appendix M.

**EPA Permit Issuance Workload Model, 1987:** This EPA model predicts levels of effort involved in the permitting of various types of discharges (e.g., minor municipal, minor industrial, and general permits). The model, including outputs, workloads, and resources, is included in Appendix N.

**EPA Regional and State Permitting Agencies:** Supporting information was obtained from the EPA Regional permitting authorities and State permitting agencies to assist in the economic assessment of the various regulatory options. Statistical information on the resources required for the development of options, permitting staff salary information, the average number of discharges covered under a general permit, and other pertinent data were compiled and assessed.

## UNIT COST COMPARISONS

The projected resources, costs, and unit savings (in relation to the standard/model baseline) are presented in Table 4-7.

If unit savings are ranked in descending order, the following results are obtained:

| | Resource Savings (Percent) | Cost Savings (Percent) |
|---|---|---|
| 1. Exclusion by Waiver: | 91.8 | 93.7 |
| 2. General Permit: | 19.9 | 22.9 |
| 3. Over-the-Counter Permits: | 19.1 | 21.8 |
| 4. Ten-Year Permit: | 16.0 | 16.8 |

Table 4-7

Unit Resource and Cost Comparison

| Regulatory Options | Unit Resources Person-Hour | Unit Costs Dollars | Unit Savings* Resources | Unit Savings* Dollars |
|---|---|---|---|---|
| Standard/Model Permit (Baseline) | 146.9 | $1,807.00 | 0.0 (0%) | $0.00 (0%) |
| General Permit | 117.6 | $1,393.78 | 29.3 (19.9%) | $413.22 (22.9%) |
| Ten-Year Permit** | 123.4 | $1,502.90 | 23.5 (16.0%) | $304.10 (16.8%) |
| Over-the-Counter Permit | 118.8 | $1,412.40 | 28.1 (19.1%) | $394.60 (21.8%) |
| Exclusion by Waiver | 12.1 | $114.40 | 134.8 (91.8%) | $1,692.60 (93.7%) |

*Savings are in relation to the Standard/Model Permit (Baseline).
**Costs are divided by 2 to represent costs over a 5-year term.

## Chapter Five

# CONCLUSIONS AND RECOMMENDATIONS

The preceding chapters have summarized EPA's current information about the type of discharges that may be classified as *de minimis*, evaluated the existing and alternative methods of regulating such discharges, and assessed the potential unit cost savings to the permitting agency in terms of resources and dollars that could be attributed to the alternative regulatory options used to permit *de minimis* discharges. This chapter provides conclusions on the Agency's findings, as well as recommendations concerning the most effective and appropriate methods of regulating *de minimis* discharges.

## IDENTIFICATION OF *DE MINIMIS* DISCHARGES

Based solely on readily available data systems within the Agency, approximately 1.2 percent of discharges into navigable waters can be identified as potential *de minimis* (e.g., not significant) discharges. The data base used to make this determination was extremely limited since most data gathering and permitting activities have concentrated on major discharges. Because the data on most minor facilities are limited, entire groups of dischargers were screened out from the category of potential *de minimis* if there was reason to conclude that a group of permittees contained at least a reasonable number of dischargers that could not be considered *de minimis*. The Agency approached the *de minimis* classification in this manner to avoid overestimating the number of *de minimis* discharges. As a result, the projected number of potential *de minimis* discharges may be underestimated; some facilities that were categorically excluded could be determined to qualify as *de minimis* if it were possible to examine them on a case-by-case basis. All potential *de minimis* facilities should be subject to site-specific criteria (e.g., toxic pollutant discharge,

flow/stream flow volume, water quality factors) to confirm the discharge as *de minimis* or *non-de minimis* and to ensure that water quality is not significantly impacted.

The best data systems available to the Agency for use in the classification of *de minimis* discharges are not up-to-date and are known to lack information on minor discharges, which are the only candidates for potential *de minimis* classification. EPA is currently updating its data systems. In addition, the designation of SIC codes has been refined by the Agency's Office of Wastewater Enforcement and Compliance (OWEC) for the probable discharge of toxic pollutants from an industry, based on assignment of toxicity indices. The criteria used by OWEC to designate a discharge as major or minor have also been revised and full implementation occurred on July 1, 1991. The revised criteria will be applicable for use by permitting authorities to confirm a facility's discharge as *de minimis* or *non-de minimis*. This information updating may enable EPA to develop a more accurate and complete profile of *de minimis* discharges in the future and to develop regulatory and management programs as needed.

## REGULATORY OPTIONS

Alternative types of regulations were considered for discharges that are determined to be *de minimis*, which may reduce the regulatory/administrative burden on the regulatory agencies as well as on industry. Potential regulatory options include general permits (currently administered under existing regulations), the ten-year permit, over-the-counter permitting, exclusion by waiver from the NPDES program, and a national rule approach. As previously mentioned, the national rule approach was not evaluated because of the limited data base. Options other than the general permit approach may require statutory changes. As this report does not review these legal issues, closer legal and technical scrutiny would be appropriate if further consideration of other options is deemed warranted.

## General Permits

The technical and economic evaluations performed in this study indicate that general permits are the most effective and appropriate method, from the permitting agency's perspective, of regulating *de minimis*-type discharges at this time, if a sufficient number of potential *de minimis* discharges are confirmed within a specified geographical or political boundary (Table 5-1). This conclusion is based on the following information:

- **Resource and Cost Savings:** Unit resource and cost savings attributed to the permitting of *de minimis* discharges using general permits, although approximate, are shown to be significant. Twenty and 23 percent unit savings are projected for resources and costs, respectively.

- **Regulatory Authority**: The regulatory authority for the General Permit Program is already in place. EPA proposed general permit regulations in 1977; they were published as final in June 1979.

- **Utilization:** The General Permit Program is currently utilized by a number of Regions and approved States with noted success in reducing the burden for permitting agencies. The State of Wisconsin has an extensive and effective General Permit Program that covers one-half of the facilities or activities within the State. The majority of these discharges are minor discharges.

- **Positive Consensus:** A positive consensus was received from EPA Regional and State permitting authorities on the applicability of the general permit.

Table 5-1

Summary of Regulatory Option Evaluations

| Statutory/ Permitting Option | Regulatory Change | Utilization | Estimated Unit Savings | | Positive Consensus from Permitting Authorities |
|---|---|---|---|---|---|
| | | | Resource (Percent) | Cost (Percent) | |
| General Permit | No | 28 NPDES States plus 16 non-NPDES States or Territories | 20 | 23 | Yes |
| Ten-Year Permit | Yes | California non-NPDES extended-life permits | 16 | 17 | Yes |
| Over-the-Counter Permit | Maybe | New Jersey non-NPDES permits | 19 | 22 | No |
| Exclusion by Waiver | Yes | California for land discharges (non-NPDES) | 92 | 94 | Yes |

Concern has been expressed by EPA and State authorities that although the general permit appears to be an appropriate regulatory option for *de minimis* discharges, the need exists for better communication and coordination in the State approval and permit review process to help streamline State authority and permit approval. The Agency has developed guidance in the form of manuals, briefing papers, and other documents that describe the uses and benefits of the General Permit Program; has assisted authorities in the development and issuance of general permits; and has identified model general permits that have already been developed.

**Ten-Year Permits**

The ten-year permit concept shows estimated unit savings of 16 and 17 percent for resources and costs, respectively, and a positive consensus among permitting authorities. However, a statutory change would be required.

**Over-the-Counter Permits**

Over-the-counter permits are estimated to have low applicability within the current NPDES program and did not generally receive positive reactions from permitting authorities. Unit resource and cost savings are estimated at 19 and 22 percent, respectively. If this process is to incorporate a bypass of public notice, a statutory change would be required.

**Exclusion by Waiver**

Exclusion by waiver would be a site-specific means of excluding discharges from the NPDES program. Permitting authorities felt that there may be a need for site-specific exclusion for special types of discharges because they are regulated by other agencies, they

are short-term and intermittent, or they have a unique noneffluent nature. Unit resource and cost savings were estimated at 92 and 94 percent, respectively. Exclusion by waiver would require a statutory change. Additional study would be needed to determine whether exclusion by waiver, which would result in the greatest cost savings, could provide an effective measure of dealing with *de minimis* discharges under the appropriate site-specific circumstances, including ensuring insignificant risk to the environment.

### National Rule

A national rule approach would be a means of regulating classes of *de minimis* discharges without having the administrative burden of processing permit applications or issuing permits at the State level. The national rule approach may require a statutory change.

## RECOMMENDATIONS FOR IMPLEMENTATION

EPA recognizes that there may be point source discharges into navigable waters that, in terms of volume, concentration, and type of pollutant, are not significant (i.e., *de minimis*). The general permit is recommended as the most effective and appropriate method, at this time, of regulating such discharges to reduce the regulatory and administrative burden on permitting agencies as well as industry. However, the general permit will be effective only if the number of potential *de minimis* discharges within a specified geographical or political boundary is adequate to make the permit administratively worthwhile. Because of the low number of projected *de minimis* discharges (893 facilities), a general permit may not be effective in all cases. Implementation of individual 5-year permits based on standard "models" issued by EPA as guidance would be appropriate.

Implementation of other options may also not be cost-effective if there is a low number of *de minimis* discharges.

The following activities should be undertaken if further evaluation of a *de minimis* regulatory program is deemed warranted:

- EPA should continue to strongly encourage States that currently do not have general permit authority to seek such authority. (Eleven States were granted general permit authority between January 1, 1991, and September 30, 1991. Eleven States with NPDES authority still do not have general permit authority.)

- A strong technical assistance and information transfer effort should be established between the Agency and permitting authorities to ensure that a *de minimis* regulatory program would proceed smoothly and expeditiously.

- Data systems and site-specific criteria should be updated and fully developed to assist the permitting authorities in determining which discharges are truly *de minimis*.

- The general permit program should be reviewed to determine whether it can be further simplified and streamlined, allowing for flexibility in implementation and processing.

- EPA should consider conducting further legal and technical evaluations of alternative regulatory options.

- EPA should consider assessing, through on-site surveys in watersheds, whether *de minimis* discharges are found in groups categorically excluded from *de minimis* through the methodology used in this report.

- EPA should consider consulting with potentially affected industrial groups to determine the relative cost savings to *de minimis* dischargers of the regulatory options identified.

- To the extent that the Agency determines that an option which requires statutory change is the more appropriate approach, such change should be dealt with as part of the CWA reauthorization process.

# APPENDICES

**Appendix A: Legislative History**

**Appendix B: Regional Contact Questionnaire**

**Appendix C: Survey Results - Potential *De Minimis* Discharges**

**Appendix D: Survey Results - Potential Regulatory Options**

**Appendix E: Toxicity Indices for Industrial Subcategories**

**Appendix F: Classification of Major and Minor Permits**

**Appendix G: Secondary Facilities - Toxic Discharge**

**Appendix H: Secondary Facilities - Effluent Guidelines**

**Appendix I: Secondary Facilities - Permit Limitations**

**Appendix J: Secondary Facilities - Potential *De Minimis***

**Appendix K: State NPDES Program Status**

**Appendix L: General Permit Information**

**Appendix M: North Carolina Case Study**

**Appendix N: EPA Permit Issuance Workload Model**

# APPENDIX A

## Legislative History

This appendix provides the legislative history of the *De Minimis* Discharge Study beginning with the first mention in the 1982 public record of the exclusion of "insignificant discharges" from the requirements of the NPDES permits.

Statement of James C. Hildrew, Manager, Environmental Affairs, Mobil Oil Corporation, on July 28, 1982, on behalf of the American Petroleum Institute before the Subcommittee on Water Resources of the Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 97-73, Possible Amendments to the Federal Water Pollution Control Act, pp. 1013 - 1016, published by U.S. Government Printing Office, Washington, 1982].

II. National Pollutant Discharge Elimination System (NPDES) Permits Program

Section 402 of the Clean Water Act (CWA) establishes the NPDES permit program. Under this program, all point source discharges of pollutants to navigable waters must have an NPDES permit. Because the permit program imposes an unnecessarily heavy burden in terms of time and resources on government and industry, some modification of the program requirements is necessary. Specifically, the petroleum industry is concerned with the lifetime of NPDES permits and the fact that insignificant discharges are included in the NPDES permit program.

A. NPDES Permit Term Extension -- Under Section 402 of the CWA, NPDES permits may be written for a period not to exceed five years. The proposed revision to Section 402 would extend this period up to ten years.

The existing five year maximum lifespan for NPDES permits imposes unnecessary burdens on industry, EPA and states alike. It may take as long as a year for a final permit to be issued. Additionally, up to three years may be required to install

treatment technology necessary to comply with permit conditions. Under this scenario, the effectiveness of existing permit conditions may not be ascertainable by the time the permit application and issuance process must be repeated since the permittee may have only one year of actual experience in the effectiveness of the particular technology.

Extending the lifetime of an NPDES permit would not adversely impact water quality. Section 122.9(e) of EPA's Consolidated Permit Regulations authorizes issuance of permits for durations less than the full allowable term. Moreover, Section 402(b)(1)(C) of the Act provides for the termination or modification of an extant NPDES permit for cause. Therefore, EPA and the states have adequate flexibility to issue fixed life permits of less than ten years duration and to reopen a permit which was issued for a full ten-year term if individual conditions warrant such treatment.

API supports the Administration's efforts to place the Clean Water Act on parity with other environmental statutes. Congress has not placed restrictions on the duration of permit terms under other environmental statutes such as the Resource Conservation and Recovery Act (RCRA) and the Clean Air Act.

B. <u>Excluding Insignificant Discharges</u> -- An additional burdensome problem with Section 402 is the application of permit requirements to environmentally insignificant point source discharges. Thousands of discharges, including many sources of storm water runoff, have little or no adverse impact on water

quality yet are regulated under the NPDES permit program. This is both time consuming and costly and imposes an unreasonable and unnecessary burden on both state and EPA permit issuing authorities and industry. Faced with the enormous task of renewing permits for major point source discharges, it is doubtful that permit issuing authorities will be able to act on most minor discharge permit applications during the next several years.

During the first round of NPDES permit issuances under the Federal Water Pollution Control Act of 1972, EPA attempted to exclude many storm water discharges containing insignificant quantities of pollutants from NPDES permit requirements. This exclusion was challenged by the National Resources Defense Council (NRDC) which claimed that EPA had no authority under the Act to exclude any point source discharges of pollutants.[3/] The court agreed with NRDC and as a result EPA now believes that it has little or no discretion in its application of the permit program.

Based on a survey of 39 states, the Association of State and Interstate Water Pollution Control Administrators in May 1979 reported that a total of 5,808 major and 36,090 minor NPDES discharge permits had been issued to both industrial and municipal dischargers.[4/] The report stated: "about 51 percent of all permits issued ... involved relatively insignificant facilities with respect to point source pollution concerns." In spite of EPA's efforts, there are still thousands

of permit applications (some submitted as long ago as 1972) for small sources that have not yet been acted upon and on which the permit issuing authorities have little interest in acting.

The resources of government and industry should be directed toward eliminating major sources of pollution to the nation's waters and should not be diluted by the necessity to include minor or insignificant discharges under the NPDES permit program. By reducing the NPDES permit requirement from almost universal coverage to a more realistic level, both industry and government will be able to better focus on the real problem areas affecting the environment.

API believes that the Clean Water Act needs further amendment in this area. Specifically:

- The EPA Administrator should be given specific authority to exempt environmentally insignificant discharges from the requirements of the NPDES permit program. This authority should be sufficiently flexible to allow both exclusion of appropriate discharges such as storm water run-off from a category or class of point sources as well as case-by-case exemptions. An expedited procedure should be established for case-by-case exemptions.

Testimony of New York State Commissioner of Environmental Conservation, Robert F. Flacke, on July 29, 1982, before the Subcommittee on Water Resources of the Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 97 - 73, Possible Amendments to the Federal Water Pollution Control Act, pp. 1506 - 1507, published by U.S. Government Printing Office, Washington, 1982].

11. NPDES Permit Term Extension (Section 402)

This amendment provides for extension of NPDES permit terms from five years to no more than ten years.

The paper, time, and resources involved in issuing a NPDES delegated permit are considerable, both on the part of the regulating agency and the source owner. Permits for major sources now average thirty pages, four months processing time, and cost thousands of dollars to issue. Since DEC was delegated NPDES authority in October of 1975, over 7,000 dischargers have received permits. The first group of permits issued in late 1975 and those issued by EPA prior to delegation have expired and are now subject to renewal.

The original legal requirements for industry and municipalities under the 1972 amendments mandated various levels of treatment to be achieved by 1977 and 1983. The 1977 date was within a five-year time frame from the enactment date but the 1983 date was not. As a result, first time permits were issued by EPA and/or DEC with many expiring within a few years of the next plateau, i.e. July 1, 1983, with no legal right to include the 1983 requirements (besides the chronological difficulties, the lack of promulgated standards was paramount and much more highly publicized).

Now we are at a point where the so-called second round drafting of permits must be accomplished quickly to provide the permittee sufficient time to meet the original 1983 requirements (now proposed for extension to 1988). If permits are issued in a timely manner during 1982, the expiration would be in 1987 under the present five (5)-year duration limit. This end date may or may not be adequate should another amendment allow a further extension. The history of deadlines and amendments shows the five (5)-year time frame to be awkward and inappropriate.

Additionally, dischargers of a minor nature, which are about 80% of the permittees, need not be reviewed every five years. The unchanging nature of the waste streams and/or the lack of additional treatment requirements or need make permit renewal routine. The permit process would be enhanced substantially if permit duration were allowed beyond five (5) years. As well, resources saved from permit administration of minor sources could be reallocated to higher priority program areas, such as inspection and monitoring of major facilities.

Lastly, the law gives us the right to modify a permit at any time for cause, thereby partially negating the need to reissue on a more frequent basis.

New York recommends that the maximum period for which NPDES permits are valid be lengthened to ten years, while retaining the right to review any permit more frequently.

Statement of J. William Haun, Chairman of Clean Water Project, National Environmental Development Association, on July 29, 1982, before the Subcommittee on Water Resources, Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 97 - 73, Possible Amendments to the Federal Water Pollution Control Act, pp. 1829 - 1830, published by U.S. Government Printing Office, Washington, 1982].

DeMinimis Discharges

The Act requires that a NPDES permit must be obtained for a point source discharge even if the discharge is small or contains only minute quantities of benign pollutants. In short, every source discharging water requires a permit. This is significantly different than such laws as the Clean Air Act which regulates sources only above certain size limits.

The NPDES permit program imposes time-consuming requirements not only on industry but upon permit-issuing authorities. Implementing regulations are complex and can require considerable effort and expense. The permit process may take months, and in some cases, years. In many cases the discharge is of little or no consequence to improved water quality but a permit is still required. For example, the law is so rigid that a permit is required for uncontaminated stormwater runoff channeled into ditches around an industrial plant.

Nearly everyone involved in the administration of the law acknowledges that a significant portion of the 60,000 permits involves insignificant sources.

It appears sensible to direct the Clean Water Act efforts of government and industry toward cleaning up significant pollution of the nation's waters, without unnecessary time, money, and attention aimed at permits for insignificant discharges. EPA is moving in this direction by setting priorities for renewal. But more can be done to unclog the system.

If discharges are de minimis, based on concentration, volume and type of discharge, and are insignificant to the protection of water quality, EPA should be given the flexibility to exempt sources or categories of sources from NPDES permit requirements.

NPDES Permit Life

Under the present law, NPDES permits must be renewed every five years even though it frequently takes more than one year for the final permit to be issued and up to three years to install treatment technology. A five-year permit life allows little time for the permit holder to test the effectiveness of the treatment before the permit renewal application process begins again. The need for renewal of permits every five years, or even more frequently in many instances, subjects EPA and the state agencies to substantial administrative burdens especially when considering the volume of permits in the system.

There is a growing consensus that the maximum allowable life of a NPDES permit should be extended from five to ten years. A 1980 House Subcommittee on Oversight and Review report titled "Implementation of the Federal Water Pollution Control Act" states that lengthening the period for which a permit remains valid will "provide greater stability and certainty to the NPDES program."

## REPORT OF COMMITTEES ON PUBLIC BILLS AND RESOLUTIONS

Under clause 2 of rule XIII, reports of committees were delivered to the Clerk for printing and reference to the proper calendar, as follows:

Mr. HOWARD: Committee on Public Works and Transportation. H.R. 3282. A bill to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes; with an amendment (Rept. No. 98-827). Referred to the Committee of the Whole House on the State of the Union.

# Union Calendar No. 480

98TH CONGRESS
2D SESSION

# H. R. 3282

[Report No. 98-827]

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 13, 1983

Mr. HOWARD introduced the following bill; which was referred to the Committee on Public Works and Transportation

SEPTEMBER 14, 1983

Additional sponsors: Mr. UDALL, Mr. OBERSTAR, Mr. JEFFORDS, Mrs. SCHNEIDER, Mr. TOWNS, Mr. LANTOS, Mr. BONIOR of Michigan, Mr. GUARINI, Mr. OTTINGER, Mr. RODINO, Mr. MARKEY, Mr. FAUNTROY, Mr. TALLON, Mr. FRANK, Mr. SUNIA, Mr. MITCHELL, Ms. MIKULSKI, Mr. SEIBERLING, Mr. FLORIO, Mr. EVANS of Illinois, Mr. D'AMOURS, Mr. CROCKETT, Mr. CLAY, Mr. CONYERS, Mr. VENTO, Mr. RATCHFORD, Mr. BARNES, Mr. COUGHLIN, Mr. STOKES, Mr. DIXON, Ms. KAPTUR, Mr. WEISS, Mr. JONES of Oklahoma, Mr. ECKART, Mr. DE LUGO, Mr. LEHMAN of Florida, Mr. SCHEUER, Mr. MINISH, Mr. BEILENSON, Mr. MORRISON of Connecticut, Mr. GEJDENSON, Mr. DONNELLY, Mr. LONG of Maryland, Mr. FAZIO, Mr. FORSYTHE, Mr. TORRICELLI, Mr. CARPER, and Mr. YATES

FEBRUARY 2, 1984

Additional sponsors: Mr. FISH, Mr. LOWRY of Washington, Mr. HUGHES, Mr. LEVINE of California, Mrs. SCHROEDER, Mr. DELLUMS, Mrs. BOXER, Mr. WEAVER, Mr. McDADE, Mr. EDGAR, Mrs. BURTON of California, Mr. NEAL, Mr. BATES, Mr. KOLTER, Mr. MRAZEK, Mr. WHEAT, Mr. HOYER, Mrs. KENNELLY, Mr. BOSCO, Mr. WEBER, Mr. SHANNON, Mr. CLARKE, Mr. KOSTMAYER, Mr. MAVROULES, Mr. MOAKLEY, Mr. SMITH of New Jersey, Mr. BERMAN, Mr. HARKIN, Mr. WYDEN, Mr. OWENS, Mr. SABO,

5 *STUDY OF REGULATION OF DE MINIMIS DISCHARGES*

6 *SEC. 35. The Administrator of the Environmental Pro-*
7 *tection Agency shall study the feasibility and desirability of*
8 *eliminating the regulation of discharges of pollutants into the*
9 *navigable waters in amounts which, in terms of volume, con-*
10 *centration, and type of pollutant, are not significant. The Ad-*
11 *ministrator shall submit a report of such study along with*
12 *recommendations to the Committee on Public Works and*
13 *Transportation of the House of Representatives and the Com-*
14 *mittee on Environment and Public Works of the Senate not*
15 *later than one year after the date of enactment of this Act.*

Testimony of New York State Commissioner of Environmental Conservation, Henry G. Williams, on September 20, 1983, before the Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 98 - 33, Possible Amendments to the Federal Water Pollution Control Act, p. 369, published by U.S. Government Printing Office, Washington, 1984].

#### 4. NPDES PERMIT DURATION

Ten-year permits would give regulating agencies the ability to concentrate their resources on permit compliance rather than permit administration. Obvious advantages to the permittee are a reduction in paperwork and a more stable basis on which to make business decisions.

In New York, ninety percent of the point source pollution load comes from ten percent of the sources. Ten-year permits will allow us to concentrate our resources on the more significant discharges. We've always had, and should continue to have, the authority to revise permits prior to their expiration to update permit requirements or schedules. It is recommended that the duration of NPDES permits be extended from five to no more than ten years.

Statement of O. G. Simpson, Atlantic Richfield Company, Dallas, Texas, on October 24, 1983, before the Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 98 - 33, Possible Amendments to the Federal Water Pollution Control Act, p. 3604, published by U.S. Government Printing Office, Washington, 1984].

7. Authorize de minimis exemptions.

Unlike the Clean Air Act and other pollution control statutes, the Clean Water Act makes no allowance in its permit requirements for small point source dischargers of conventional pollutants. This lack of consideration imposes unnecessary control requirements on insignificant dischargers and prevents full concentration of resources on control of more important sources of pollution. The Clean Water Act should be amended to allow EPA to establish de minimis classes of point source dischargers of conventional pollutants. A de minimis discharger would be required to file a request for exemption and appropriate documentation relative to the proposed discharge with EPA or the state, as the case may be; if the permitting authority took no action on the request within 30 days, the exemption would be approved automatically.

Statement of Kenneth E. Blower, Manager of Environmental Affairs, The Standard Oil Company of Ohio, representing The American Petroleum Institute as Chairman, API Water Program Committee, on November 10, 1983, before the Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 98 - 33, Possible Amendments to the Federal Water Pollution Control Act, pp. 2491 - 2493, published by U.S. Government Printing Office, Washington, 1984].

API recommends that Section 402(b)(1)(B) of the Clean Water Act be amended to read as follows (changes are underscored):

> "(B) except as provided under paragraph (C) of this subsection, are for fixed terms not exceeding ten years, unless a permit includes a waiver or modification of any otherwise applicable requirement pursuant to Sections 301(c), (g), (h) and (m) of this Act, in which case such permit shall be for a fixed term not exceeding five years;".

Where a facility is granted an economic or water quality based waiver under the act, the permit lifetime would still be limited to five years. However, other minor modifications would not prevent a facility from obtaining a ten year permit.

The amendment recommended by API would allow a 10-year permit term that corrects the problems encountered with the five-year term. The existing five-year maximum lifespan for NPDES permits has imposed unnecessary burdens and costs on industry, EPA and the states alike. It may take as long as a year for a final permit to be issued. Up to three years may be required to install treatment technology necessary to comply with permit conditions. This scenario leaves little time to obtain data on effluents before the permit has to be renewed.

It has been estimated that about 65,000 permits have been issued since 1972.[1] EPA and the states are now facing an increasing backlog of permits which have expired and must be reissued. This problem could be alleviated in the future by amending the act to provide permit authorities the flexibility to issue permits for terms up to 10 years.

Moreover, the 10-year lifetime would make the NPDES permit program more consistent with permit programs enforcing other environmental laws. Congress has not placed restrictions on the duration of permit terms under the Resource Conservation and Recovery Act and the Clean Air Act.

B. Excluding Insignificant Discharges

S. 431's Section 13 recognizes the need to exempt from the NPDES permit program discharges that have little or no adverse impact on water quality. The provision exempts discharges of stormwater runoff from mining operations and oil or gas exploration, production, processing, or treatment operations that are not contaminated with process wastes, overburden, raw

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1 Deputy Administrator, Dr. John Hernandez, Jr., U.S. Environmental Protection Agency, Testimony before the Subcommittee on Environmental Pollution, Senate Committee on Environment and Public Works, February 5, 1982.

materials, toxic pollutants, hazardous substances in excess of reportable quantities, or oil or grease from the Clean Water Act's requirement to obtain an NPDES permit.

However, the proposed language fails to explain what constitutes "contaminated by oil or grease." API recommends that line 17 of Section 13 be changed to read "or oil or grease in excess of reportable quantities." This is the phrasing used to define "contamination by hazardous substances."

In addition to the specific exemption provided by Section 13 of S.431, Congress should consider amending the act to provide authority for EPA to exempt other environmentally insignificant discharges from the NPDES permit program. That is, EPA should be allowed (a) to exempt appropriate discharges from categories of point sources and (b) to exempt specific point source discharges on a case-by-case basis.

A Clean Water Act amendment excluding insignificant discharges from the NPDES permit program will help address a problem that EPA, state agencies and industry have all acknowledged. Thousands of insignificant discharges are currently regulated under the NPDES permit program. Faced with the enormous task of renewing permits for major point sources, permit issuing authorities probably will not be able to act on most minor discharge permit applications during the next several years.

During the first round of NPDES permit issuances under the Federal Water Pollution Control Act of 1972, EPA attempted to exclude many stormwater discharges containing insignificant quantities of pollutants from NPDES permit requirements. This exclusion was challenged by the Natural Resources Defense Council (NRDC) which claimed that EPA had no authority under the act to exclude any point source discharges of pollutants.[2] The court agreed with NRDC, and, as a result, EPA now believes that it has little or no discretion in its application of the permit program. Based on a survey of 39 states, the Association of State and Interstate Water Pollution Control Administrators in May 1979 reported that a total of 5,808 major and 36,090 minor NPDES discharge permits had been issued to both industrial and municipal dischargers. The report stated: "About 51 percent of all permits issued ... involved relatively insignificant facilities with respect to point source pollution concerns."[3] In spite of EPA's efforts, thousands of permit applications (some submitted as long ago as 1972) for small sources are still pending.

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2 NRDC v. Train, 396 F.Supp 1393 (D.D.C. 1975), aff'd. NRDC v. Costle, 568 F.2d 1369 (D.C. Cir. 1977).

By excluding insignificant discharges from NPDES permit requirements, both industry and government will be able to better focus on eliminating major sources of pollution from the nation's waters.

Statement of J. William Haun, Vice President, General Mills Corporation, as Chairman, Clean Water Project, National Environmental Development Association, on November 10, 1983, before the Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 98 - 33, Possible Amendments to the Federal Water Pollution Control Act, pp. 2546 - 2547, published by U.S. Government Printing Office, Washington, 1984].

De Minimis Exemptions

The majority of Clean Water Act permits are for minor discharges. Literally thousands of NPDES small-source discharge permit applications, some written as long ago as 1972, are awaiting action.

An illustration of the problem is an actual case where a company's drinking fountain, because of its location, drains its overflow into a water body. That drinking fountain requires an NPDES permit, and there is no provision allowing it to be exempted.

The EPA Administrator should be allowed to exempt de minimis point source discharges and channeled stormwater runoff containing de minimis quantities of pollutants from the NPDES permit procedure. Determination of eligibility for exemption should be based on concentration, volume and type of discharge.

The Senate Committee has, in part, recognized this point and has included in S.431 exemptions for channeled stormwater runoff which contains no pollutants for oil, gas, and mining industries. However, we see no reason to limit this exemption to certain industries or types of discharge. All discharges which contain little or no pollutants should be eligible for exemption.

98TH CONGRESS 2d Session | HOUSE OF REPRESENTATIVES | REPORT 98-827

# WATER QUALITY RENEWAL ACT OF 1984

JUNE 6, 1984.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. HOWARD, from the Committee on Public Works and Transportation, submitted the following

## REPORT

together with

## ADDITIONAL AND SUPPLEMENTAL VIEWS

[To accompany H.R. 3282]

[Including cost estimate of the Congressional Budget Office]

The Committee on Public Works and Transportation, to whom was referred the bill (H.R. 3282) to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment strikes out all after the enacting clause of the bill and inserts a new text which appears in italic type in the reported bill.



### SECTION 35

This section directs the Administrator to study the feasibility and desirability of eliminating the regulation of discharges of pollutants into the navigable waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant. A report, with recommendations, is to be submitted to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within one year of the date of enactment of H.R. 3282.

98TH CONGRESS 2d Session | HOUSE OF REPRESENTATIVES | REPORT 98-838

# PROVIDING FOR THE CONSIDERATION OF H.R. 3282

JUNE 13, 1984.—Referred to the House Calendar and ordered to be printed

98TH CONGRESS
2D SESSION

# H. R. 5903

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

JUNE 20, 1984

Mr. OBERSTAR (for himself, Mr. MAVROULES, Mr. WON PAT, Mr. LEVINE of California, Mr. STOKES, Mr. MITCHELL, Mr. SHANNON, Mr. JEFFORDS, Mr. SIKORSKI, Ms. KAPTUR, Mr. COUGHLIN, Mr. FAUNTROY, Mr. ASPIN, Mr. BATES, Mr. SPRATT, Mr. CARPER, Mr. LOWRY of Washington, Mr. KILDEE, Mr. GREEN, Mr. BARNES, Mr. EDWARDS of California, Mr. MORRISON of Connecticut, Mr. ACKERMAN, Mr. FRANK, Mr. HAMILTON, Mr. MINETA, Mr. BONER of Tennessee, Mr. WEAVER, Mr. DURBIN, Mr. FASCELL, Mr. DASCHLE, and Mr. BOEHLERT) introduced the following bill; which was referred to the Committee on Public Works and Transportation

---

# A BILL

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SHORT TITLE

4 SECTION 1. This Act may be cited as the "Water Qual-
5 ity Renewal Act of 1984".

3 STUDY OF REGULATION OF DE MINIMIS DISCHARGES

4 SEC. 35. The Administrator of the Environmental Pro-
5 tection Agency shall study the feasibility and desirability of
6 eliminating the regulation of discharges of pollutants into the
7 navigable waters in amounts which, in terms of volume, con-
8 centration, and type of pollutant, are not significant. The Ad-
9 ministrator shall submit a report of such study along with
10 recommendations to the Committee on Public Works and
11 Transportation of the House of Representatives and the
12 Committee on Environment and Public Works of the Senate
13 not later than one year after the date of enactment of this
14 Act.

HR 5903 IH

AMENDMENTS

Under clause 6 or rule XXIII, proposed amendments were submitted as follows:

H.R. 3282

By Mr. ROE:

Amendment in the nature of a substitute.

—Strike out all after the enacting clause and insert in lieu thereof the following:

SHORT TITLE

SECTION 1. This Act may be cited as the "Water Quality Renewal Act of 1984".



STUDY OF REGULATION OF DE MINIMIS DISCHARGES

SEC. 35. The Administrator of the Environmental Protection Agency shall study the feasibility and desirability of eliminating the regulation of discharges of pollutants into the navigable waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant. The Administrator shall submit a report of such study along with recommendations to the Committee on Public Works and Transportation of the House of Representatives and the Committee on Environment and Public Works of the Senate not later than one year after the date of enactment of this Act.

Mr. ROE (during the reading). Mr. Chairman, I ask unanimous consent that the amendment in the nature of a substitute be considered as read and printed in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from New Jersey?

There was no objection.

(Mr. ROE asked and was given permission to revise and extend his remarks.)

(By unanimous consent, Mr. ROE was allowed to proceed for 5 additional minutes.)

Mr. HOWARD. Mr. Chairman, will the gentleman yield?

Mr. ROE. I yield to the gentleman from New Jersey.

Mr. HOWARD. I thank the gentleman for yielding.

Mr. Chairman, I just wish to take this time to congratulate the gentleman in the well, the gentleman from New Jersey [Mr. ROE], the gentleman from Minnesota [Mr. STANGELAND], the ranking minority member on the Subcommittee on Water Resources, all the members of the Public Works and Transportation Committee, and to a very great degree the majority and minority staffs of this subcommittee, which have worked so long and so hard to present this, the finest clean water bill ever presented to the Congress. I congratulate them on their work and effort, and I ask for the overwhelming support of our colleagues on this vital measure.

Mr. ROE. Mr. Chairman, I thank the gentleman from New Jersey [Mr. HOWARD] for his comments, and I, too, want to extend my appreciation to him and to the gentleman from Kentucky [Mr. SNYDER], the ranking minority member of the committee, and the gentleman from Minnesota [Mr. STANGELAND], the ranking minority member of the subcommittee, who is my counterpart on the Subcommittee on Water Resources. I also want to particularly single out the gentleman from Pennsylvania [Mr. EDGAR] amongst our other Members who have done such a splendid job on this legislation, and particularly the staff for the outstanding job and the work that they have conducted on this most important Water Quality Renewal Act of 1984.

Mr. Chairman, this amendment is an amendment in the nature of a substitute to the bill, H.R. 3282, the Water Quality Renewal Act of 1984, which was reported by our committee on June 6, 1984. This amendment is designed to address a number of problems which arose after the bill was reported. The amendment was published in the CONGRESSIONAL RECORD for June 22 for the information of the Members. A detailed analysis of the amendment follows:

SECTION-BY-SECTION ANALYSIS

(AMENDMENT IN THE NATURE OF A SUBSTITUTE TO H.R. 3282 OFFERED BY MR. ROE)

SECTION 1

Section 1 provides that this Act may be cited as the Water Quality Renewal Act of 1984.



SECTION 38

This section directs the Administrator to study the feasibility and desirability of eliminating the regulation of discharges of pollutants into the navigable waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant. A report, with recommendations, is to be submitted to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within one year of the date of enactment of H.R. 3282.

The CHAIRMAN pro tempore. The question is on the amendment in the nature of a substitute offered by the gentleman from New Jersey [Mr ROE], as amended.

The amendment in the nature of a substitute, as amended, was agreed to.

The CHAIRMAN pro tempore. Under the rule, the Commitee rises.

□ 1715

Accordingly, the Committee rose, and the Speaker having resumed the chair, Mr. KAZEN, Chairman pro tempore of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H.R. 3282) to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes, pursuant to House Resolution 522, he reported the bill back to the House with an amendment adopted by the Committee of the Whole.

The SPEAKER. Under the rule, the previous question is ordered.

Is a separate vote demanded on any amendment to the amendment in the nature of a substitute adopted by the Committee of the Whole? If not, the question is on the amendment.

The amendment was agreed to.

The SPEAKER. The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

The SPEAKER. The question is on the passage of the bill.

The question was taken; and the Speaker announced that the ayes appeared to have it.

Mr. FRENZEL. Mr. Speaker, I object to the vote on the ground that a quorum is not present and make the point of order that a quorum is not present.

The SPEAKER. Evidently a quorum is not present.

The Sergeant at Arms will notify absent Members.

The vote was taken by electronic device, and there were—yeas 405, nays 11, not voting 17, as follows:

[Roll No. 267]

YEAS—405

| | | |
|---|---|---|
| Ackerman | Davis | Hayes |
| Addabbo | de la Garza | Hefner |
| Akaka | Dellums | Heftel |
| Albosta | Derrick | Hertel |
| Alexander | DeWine | Hightower |
| Anderson | Dickinson | Hiler |
| Andrews (NC) | Dicks | Hillis |
| Andrews (TX) | Dingell | Holt |
| Annunzio | Donnelly | Hopkins |
| Anthony | Dorgan | Horton |
| Applegate | Dowdy | Howard |
| Archer | Downey | Hoyer |
| Aspin | Dreier | Hubbard |
| Badham | Duncan | Huckaby |
| Barnard | Durbin | Hughes |
| Barnes | Dwyer | Hunter |
| Bateman | Dyson | Hutto |
| Bates | Early | Hyde |
| Bedell | Eckart | Ireland |
| Bellenson | Edgar | Jacobs |
| Bennett | Edwards (AL) | Jeffords |
| Bereuter | Edwards (CA) | Jenkins |
| Berman | Edwards (OK) | Johnson |
| Bethune | English | Jones (NC) |
| Bevill | Erdreich | Jones (OK) |
| Biaggi | Evans (IA) | Jones (TN) |
| Biliraktis | Evans (IL) | Kaptur |
| Bliley | Fascell | Kasich |
| Boehlert | Fazio | Kastenmeier |
| Boggs | Feighan | Kazen |
| Boland | Ferraro | Kemp |
| Boner | Fiedler | Kennelly |
| Bonior | Fields | Kildee |
| Bonker | Fish | Kindness |
| Borski | Flippo | Kleczka |
| Bosco | Florio | Kolter |
| Boucher | Foglietta | Kostmayer |
| Boxer | Foley | Kramer |
| Breaux | Ford (MI) | LaFalce |
| Britt | Ford (TN) | Lagomarsino |
| Broomfield | Fowler | Lantos |
| Brown (CA) | Frank | Latta |
| Brown (CO) | Franklin | Leach |
| Broyhill | Frenzel | Leath |
| Bryant | Frost | Lehman (CA) |
| Burton (CA) | Fuqua | Lehman (FL) |
| Byron | Garcia | Leland |
| Campbell | Gaydos | Lent |
| Carney | Gejdenson | Levin |
| Carper | Gekas | Levine |
| Carr | Gephardt | Levitas |
| Chandler | Gibbons | Lewis (FL) |
| Chappell | Gilman | Lipinski |
| Chapple | Gingrich | Livingston |
| Clarke | Glickman | Lloyd |
| Clay | Gonzalez | Loeffler |
| Clinger | Goodling | Long (LA) |
| Coats | Gore | Long (MD) |
| Coelho | Gradison | Lott |
| Coleman (MO) | Gramm | Lowery (CA) |
| Coleman (TX) | Gray | Lowry (WA) |
| Collins | Green | Lujan |
| Conable | Gregg | Luken |
| Conte | Guarini | Lundine |
| Conyers | Gunderson | Mack |
| Cooper | Hall (OH) | MacKay |
| Corcoran | Hall, Ralph | Madigan |
| Coughlin | Hall, Sam | Markey |
| Courter | Hamilton | Marriott |
| Coyne | Hammerschmidt | Martin (IL) |
| Craig | Hance | Martin (NC) |
| Crockett | Hansen (UT) | Martin (NY) |
| D'Amours | Harkin | Martinez |
| Daniel | Harrison | Matsui |
| Darden | Hartnett | Mavroules |
| Daub | Hatcher | Mazzoli |
| Davis | Hawkins | McCain |

| | | |
|---|---|---|
| McCandless | Purcell | Sprat |
| McCloskey | Quillen | St Germain |
| McCollum | Rahall | Staggers |
| McCurdy | Rangel | Stangeland |
| McDade | Ratchford | Stark |
| McEwen | Ray | Stenholm |
| McHugh | Regula | Stokes |
| McKernan | Reid | Stratton |
| McNulty | Richardson | Studds |
| Mica | Ridge | Sundquist |
| Michel | Rinaldo | Swift |
| Mikulski | Ritter | Synar |
| Miller (CA) | Roberts | Tallon |
| Miller (OH) | Robinson | Tauke |
| Mineta | Rodino | Taurin |
| Minish | Roe | Taylor |
| Mitchell | Roemer | Thomas (CA) |
| Moakley | Rogers | Thomas (GA) |
| Molinari | Rostenkowski | Torres |
| Mollohan | Roth | Torricelli |
| Montgomery | Roukema | Towns |
| Moody | Rowland | Traxler |
| Moore | Roybal | Udall |
| Moorhead | Rudd | Valentine |
| Morrison (CT) | Russo | Vander Jagt |
| Morrison (WA) | Sabo | Vandergriff |
| Murphy | Savage | Vento |
| Murtha | Sawyer | Volkmer |
| Myers | Schaefer | Vucanovich |
| Natcher | Scheuer | Walgren |
| Neal | Schneider | Walker |
| Nelson | Schroeder | Watkins |
| Nichols | Schulze | Waxman |
| Nowak | Schumer | Weaver |
| O'Brien | Seiberling | Weber |
| Oakar | Sharp | Weiss |
| Oberstar | Shaw | Wheat |
| Obey | Shelby | Whitehurst |
| Olin | Shumway | Whitley |
| Ortiz | Shuster | Whittaker |
| Ottinger | Sikorski | Whitten |
| Owens | Siljander | Williams (MT) |
| Oxley | Simon | Williams (OH) |
| Packard | Sisisky | Wilson |
| Panetta | Skeen | Winn |
| Parris | Skelton | Wirth |
| Pashayan | Slattery | Wise |
| Patman | Smith (FL) | Wolf |
| Patterson | Smith (IA) | Wolpe |
| Pease | Smith (NE) | Wright |
| Penny | Smith (NJ) | Wyden |
| Pepper | Smith, Denny | Wylie |
| Perkins | Smith, Robert | Yates |
| Petri | Snowe | Yatron |
| Pickle | Snyder | Young (AK) |
| Porter | Solarz | Young (FL) |
| Price | Solomon | Young (MO) |
| Pritchard | Spence | Zschau |

NAYS—11

| | | |
|---|---|---|
| Bartlett | Crane, Philip | Nielson |
| Burton (IN) | Dannemeyer | Paul |
| Cheney | Lungren | Stump |
| Crane, Daniel | Marlenee | |

NOT VOTING—17

| | | |
|---|---|---|
| AuCoin | Hall (IN) | Mrazek |
| Brooks | Hansen (ID) | Ross |
| Dixon | Kogovsek | Sensenbrenner |
| Dymally | Lewis (CA) | Shannon |
| Emerson | McGrath | Wortley |
| Erlenborn | McKinney | |

□ 1730

So the bill was passed.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

## MESSAGES FROM THE HOUSE

At 11:16 a.m., a message from the House of Representatives, delivered by Mr. Berry, one of its reading clerks, announced that the House has passed the following bills, in which it requests the concurrence of the Senate:

H.R. 3282. An act to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes; and

## MEASURES PLACED ON THE CALENDAR

The following bills were read the first and second times by unanimous consent, and placed on the calendar:

H.R. 3282. An act to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

99TH CONGRESS
1ST SESSION

# H. R. 8

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

JANUARY 3, 1985

Mr. HOWARD (for himself, Mr. ANDERSON, Mr. ROE, Mr. SNYDER, and Mr. STANGELAND) introduced the following bill; which was referred to the Committee on Public Works and Transportation

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# A BILL

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SHORT TITLE

4 SECTION 1. This Act may be cited as the "Water Qual-
5 ity Renewal Act of 1985".

19 STUDY OF REGULATION OF DE MINIMIS DISCHARGES

20 SEC. 36. The Administrator of the Environmental Pro-
21 tection Agency shall study the feasibility and desirability of
22 eliminating the regulation of discharges of pollutants into the
23 navigable waters in amounts which, in terms of volume, con-
24 centration, and type of pollutant, are not significant. The Ad-
25 ministrator shall submit a report of such study along with
26 recommendations to the Committee on Public Works and

1 Transportation of the House of Representatives and the
2 Committee on Environment and Public Works of the Senate
3 not later than one year after the date of enactment of this
4 Act.

99TH CONGRESS
1ST SESSION

# H. R. 1509

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

---

IN THE HOUSE OF REPRESENTATIVES

MARCH 7, 1985

Mr. OBERSTAR (for himself, Mr. EDGAR, Mr. MOODY, and Mr. MINETA) introduced the following bill; which was referred to the Committee on Public Works and Transportation

---

# A BILL

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SHORT TITLE

4 SECTION 1. This Act may be cited as the "Water Qual-
5 ity Renewal Act of 1985".

19 STUDY OF REGULATION OF DE MINIMIS DISCHARGES

20 SEC. 36. The Administrator of the Environmental Pro-
21 tection Agency shall study the feasibility and desirability of
22 eliminating the regulation of discharges of pollutants into the
23 navigable waters in amounts which, in terms of volume, con-
24 centration, and type of pollutant, are not significant. The Ad-
25 ministrator shall submit a report of such study along with
26 recommendations to the Committee on Public Works and





1 Transportation of the House of Representatives and the
2 Committee on Environment and Public Works of the Senate
3 not later than one year after the date of enactment of this
4 Act.

Testimony by J. Leonard Ledbetter, Commissioner, Department of Natural Resources, State of Georgia, appearing in his capacity as Vice President, Association of State and Interstate Water Pollution Control Administrators, on April 30, 1985, before the Subcommittee on Water Resources, Committee on Public Works and Transportation, U.S. House of Representatives [As printed in Committee Print 99 - 9, Possible Amendments to the Federal Water Pollution Control Act, p. 484, published by U.S. Government Printing Office, Washington, 1985].

IV. TITLE IV

Section 402 - (NPDES Permit Program)

This Section should be revised to allow partial assumption by States of the NPDES program pursuant to joint Federal/State agreements. In addition, it is essential that the Act be amended to provide for the issuance of NPDES permits up to ten years, provided flexibility is maintained to re-open a permit for good cause. The States support re-opening the permits to include promulgated effluent limitations or to address violation of water quality standards. In most States, seventy-five percent of the permits are for relatively small dischargers with non-toxic wastewaters and ten year permits would enable the States to spend more time developing and re-opening the permits for major sources.

Last year this House adopted similar legislation, H.R. 3232 by a sizable margin. Unfortunately the other body was unable to act on this legislation prior to adjournment and another year passed without Congress reauthorizing the Clean Water Act. H.R. 8 is, I believe, an even better bill and deserves our strong support. Accordingly, I urge my colleagues to support this measure inclusive of the committee amendments, so that we can continue our efforts to make our Nation's waters "swimmable and fishable" within the next 10 years.

The CHAIRMAN. The question is on the amendments offered by the gentleman from New Jersey [Mr. HOWARD].

The amendments were agreed to.

The CHAIRMAN. Pursuant to the rule, the substitute committee amendment recommended by the Committee on Public Works and Transportation now printed in the reported bill as modified by the amendments offered by the gentleman from New Jersey [Mr. HOWARD] shall be considered as an original bill for the purpose of amendment under the 5-minute rule by sections, and each section shall be considered as having been read. It shall also be in order to consider an amendment printed in the CONGRESSIONAL RECORD of July 16, 1985, by and if offered by Representative JONES of North Carolina, which shall be considered as having been read.

The Clerk will designate section 1.

The text of section 1 is as follows:

*SECTION 1. SHORT TITLE; TABLE OF CONTENTS; AMENDMENTS TO FEDERAL WATER POLLUTION CONTROL ACT; DEFINITION OF ADMINISTRATOR.*

*(a) SHORT TITLE.—This Act may be cited as the "Water Quality Renewal Act of 1985".*

*(b) TABLE OF CONTENTS.—*


*Sec. 1. Short title; table of contents; amendments to Federal Water Pollution Control Act; definition of Administrator.*
*Sec. 2. Authorizations of appropriations.*
*Sec. 3. Authorizations for construction grants.*
*Sec. 4. Compliance deadlines.*
*Sec. 5. Individual control strategies for toxic pollutants.*
*Sec. 6. Policy for control of nonpoint sources of pollution.*
*Sec. 7. Control of nonpoint sources of pollution.*
*Sec. 8. Lake restoration guidance manual.*
*Sec. 9. Small flows clearinghouse.*
*Sec. 10. Eligible categories of projects.*
*Sec. 11. Time limit on resolving certain disputes.*
*Sec. 12. Federal share.*
*Sec. 13. Agreement on eligible costs; grantee certification of treatment process; turnkey contracts.*
*Sec. 14. Grant conditions; user charges on low-income residential users.*
*Sec. 15. Allotment of construction grant funds.*
*Sec. 16. Grants to States for establishment of water pollution control revolving funds.*
*Sec. 17. Innovative technology compliance deadlines for direct dischargers.*
*Sec. 18. Variances from the application of effluent limitations.*
*Sec. 19. Water quality criteria.*
*Sec. 20. Test procedures.*
*Sec. 21. Pretreatment standards.*
*Sec. 22. Criminal penalties.*
*Sec. 23. Civil penalties.*
*Sec. 24. Administrative penalties.*
*Sec. 25. Clean lakes.*
*Sec. 26. NPDES permits.*
*Sec. 27. Audits.*
*Sec. 28. Commonwealth of the Northern Mariana Islands.*
*Sec. 29. Agricultural stormwater discharges.*
*Sec. 30. Reports to Congress.*
*Sec. 31. Newtown Creek, New York.*
*Sec. 32. San Diego, California.*
*Sec. 33. Naco, Arizona.*
*Sec. 34. Limitation on discharge of raw sewage by New York City.*
*Sec. 35. Deer Island treatment plant, Massachusetts.*
*Sec. 36. Oakwood Beach and Red Hook projects, New York.*
*Sec. 37. Chippewa Township, Pennsylvania.*
*Sec. 38. Des Moines, Iowa.*
*Sec. 39. Wastewater reclamation demonstration.*
*Sec. 40. Boston Harbor and adjacent waters.*
*Sec. 41. Treatment works in Washington State.*
*Sec. 42. Improvement projects.*
*Sec. 43. Study of regulation of de minimis discharges.*
*Sec. 44. Study of effectiveness of innovative and alternative processes and techniques.*
*Sec. 45. Water quality improvement study.*
*Sec. 46. Study of testing procedures.*
*Sec. 47. Study of pretreatment of toxic pollutants.*
*Sec. 48. Sulfide corrosion study.*
*Sec. 49. Pulp mill study.*
*Sec. 50. Study of rainfall induced infiltration into sewer systems.*
*Sec. 51. Study of pH in discharges from mining operations.*
*Sec. 52. Study of pollution in Lake Pend Oreille, Idaho.*
*Sec. 53. Limitation on payments.*


*(c) AMENDMENT OF FEDERAL WATER POLLUTION CONTROL ACT.—Except as otherwise expressly provided, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Federal Water Pollution Control Act.*

*(d) DEFINITION.—For purposes of this Act, the term "Administrator" means the Administrator of the Environmental Protection Agency.*

Mr. HOWARD. Mr. Chairman, I ask unanimous consent that the remainder of the committee amendment in the nature of a substitute be printed in the RECORD and open to amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from New Jersey?

There was no objection.

The text of the remainder of the bill, beginning with section 2, is as follows:





*SEC. 43. STUDY OF REGULATION OF DE MINIMIS DISCHARGES.*

*(a) STUDY.—The Administrator shall study the feasibility and desirability of eliminating the regulation of discharges of pollutants into the navigable waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant.*

*(b) REPORT.—Not later than one year after the date of the enactment of this Act, the Administrator shall submit a report on the results of such study along with recommendations to the Committee on Public Works and Transportation of the House of Representatives and the Committee on Environment and Public Works of the Senate.*

Excerpt from House Report 99 - 189, page 49, on The Water Quality Act of 1985, concerning the study of regulation of de minimis discharges.

SECTION 43—STUDY OF REGULATION OF DE MINIMUS DISCHARGES

This section directs the Administrator to study the feasibility and desirability of eliminating the regulation of discharges of pollutants into the navigable waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant. A report, with recommendations, is to be submitted to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within one year of the date of enactment of H.R. 8.

The CHAIRMAN. The question is on the Committee amendment in the nature of a substitute, as amended.

The Committee amendment in the nature of a substitute, as amended, was agreed to.

The CHAIRMAN. Under the rule, the Committee rises.

Accordingly the Committee rose; and the Speaker having resumed the chair, Mr. REID, Chairman of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H.R. 8) to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes, pursuant to House Resolution 222, he reported the bill back to the House with an amendment adopted by the Committee of the Whole.

The SPEAKER. Under the rule, the previous question is ordered.

Is a separate vote demanded on any amendment to the Committee amendment in the nature of a substitute adopted by the Committee of the Whole? If not, the question is on the amendment.

The amendment was agreed to.

The SPEAKER. The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

MOTION TO RECOMMIT OFFERED BY MR. DELAY

Mr. DELAY. Mr. Speaker, I offer a motion to recommit.

The SPEAKER. Is the gentleman opposed to the bill?

Mr. DELAY. I am, Mr. Speaker, in its present form.

The SPEAKER. The Clerk will report the motion to recommit.

The Clerk read as follows:

Mr. DELAY moves to recommit the bill, H.R. 8, to the Committee on Public Works and Transportation.

The SPEAKER. Without objection, the previous question is ordered on the motion to recommit.

There was no objection.

The SPEAKER. The question is on the motion to recommit.

The motion to recommit was rejected.

The SPEAKER. The question is on the passage of the bill.

The question was taken; and the Speaker announced that the ayes appeared to have it.

RECORDED VOTE

Mr. LUNGREN. Mr. Speaker, I demand a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 340, noes 83, not voting 10, as follows:

[Roll No. 250]

AYES—340

Ackerman
Addabbo
Akaka
Alexander
Anderson
Andrews
Annunzio
Anthony
Applegate
Aspin
Atkins
AuCoin
Badham
Barnard
Barnes
Bateman
Bates
Bedell
Bellenson
Bennett
Bentley
Berman
Bevill
Biaggi
Biley
Boehlert
Boggs
Boland
Boner (TN)
Bonker
Borski
Bosco
Boucher
Bozer
Breaux
Brooks
Brown (CA)
Bruce
Bryant
Burton (CA)
Bustamante
Byron
Callahan
Campbell
Carney
Carper
Carr
Chappell
Chappie
Clay
Clinger
Coelho
Coleman (MO)
Coleman (TX)
Collins
Conte
Conyers
Cooper
Coughlin
Courter
Coyne
Crockett
Daniel
Darden
Daschle
Davis
de la Garza
Dellums
Derrick
Dickinson
Dicks
Dingell
DioGuardi
Dixon
Donnelly
Dorgan (ND)
Dowdy
Duncan
Durbin
Dwyer
Dymally
Dyson
Early
Eckart (OH)
Edgar
Edwards (CA)
Emerson
English
Erdreich
Evans (IA)
Evans (IL)
Fascell
Fazio
Feighan
Fiedler
Fields
Fish
Flippo
Florio
Foglietta
Foley
Ford (MI)
Ford (TN)
Fowler
Frank
Frost
Fuqua
Gaile
Garcia
Gaydos
Gejdenson
Gekas
Gephardt
Gibbons
Gilman
Gingrich
Gonzalez
Gordon
Gradison
Gray (IL)
Gray (PA)
Green
Guarini
Gunderson
Hall (OH)
Hall, Ralph
Hamilton
Hammerschmidt
Hatcher
Hawkins
Hayes
Heftel
Hertel
Hillis
Holt
Horton
Howard
Hoyer
Huckaby
Hughes
Hutto
Hyde
Jacobs
Jeffords
Jenkins
Johnson
Jones (NC)
Jones (OK)
Jones (TN)
Kanjorski
Kaptur
Kastenmeier
Kemp
Kennelly
Kildee
Kleczka
Kolter
Kostmayer
LaFalce
Leath (TX)
Lehman (CA)
Lehman (FL)
Leland
Lent
Levin (MI)
Levine (CA)
Lewis (CA)
Lewis (FL)
Lightfoot
Lipinski
Livingston
Lloyd
Long
Lowery (CA)
Lowry (WA)
Lujan
Luken
Lundine
MacKay
Madigan
Manton
Markey
Martin (IL)
Martin (NY)
Martinez
Matsui
Mavroules
Mazzoli
McCain
McCandless
McCloskey
McCollum
McCurdy
McDade
McEwen
McGrath
McHugh
McKernan
McKinney
Mica
Mikulski
Miller (CA)
Miller (OH)
Mineta
Mitchell
Moakley
Molinari
Mollohan
Montgomery
Moody
Moore
Moorhead
Morrison (CT)
Mrazek
Murphy
Myers
Natcher
Neal
Nelson
Nichols
Nowak
O'Brien
Oakar
Oberstar
Obey
Ortiz
Owens
Packard
Panetta
Parris
Pashayan
Pease
Penny
Pepper
Perkins
Petri
Pickle
Porter
Price
Quillen
Rahall
Rangel
Ray
Regula
Reid
Richardson
Ridge
Rinaldo
Robinson
Rodino
Roe
Rogers
Rose
Rostenkowski
Roth
Roukema
Rowland (CT)
Rowland (GA)
Roybal
Rudd
Russo
Sabo
Savage
Saxton
Schaefer
Scheuer
Schroeder
Schulze
Schumer
Seiberling
Sharp
Shaw
Shelby
Shuster
Sikorski
Sisisky
Skeen
Skelton
Slattery
Slaughter
Smith (FL)
Smith (IA)
Smith (NJ)
Snowe
Snyder
Solarz
Solomon
Spence
Spratt
St Germain
Staggers
Stallings
Stangeland
Stark
Stokes
Stratton
Studds
Sundquist
Swift
Synar

Tallon
Tauzin
Taylor
Thomas (CA)
Thomas (GA)
Torres
Torricelli
Towns
Traficant
Traxler
Udall
Valentine
Vander Jagt
Vento
Visclosky
Volkmer
Vucanovich
Walgren
Watkins
Waxman
Weaver
Weiss
Wheat
Whitehurst
Whitley
Whitten
Williams
Wilson
Wirth
Wise
Wolf
Wolpe
Wortley
Wright
Wyden
Yates
Yatron
Young (AK)
Young (FL)
Young (MO)

NOES—83

Archer
Armey
Bartlett
Barton
Bereuter
Biliraki
Boulter
Brown (CO)
Broyhill
Burton (IN)
Chandler
Cheney
Coats
Cobey
Coble
Combest
Craig
Crane
Dannemeyer
Daub
DeLay
DeWine
Dornan (CA)
Dreier
Eckert (NY)
Edwards (OK)
Fawell
Franklin
Frenzel
Goodling
Gregg
Grotberg
Hansen
Hartnett
Hendon
Henry
Hiler
Hopkins
Hunter
Ireland
Kasich
Kindness
Kolbe
Kramer
Lagomarsino
Latta
Leach (IA)
Loeffler
Lott
Lungren
Mack
Marlenee
McMillan
Meyers
Michel
Miller (WA)
Morrison (WA)
Nielson
Olin
Oxley
Pursell
Ritter
Roberts
Roemer
Schuette
Sensenbrenner
Shumway
Siljander
Smith (NE)
Smith (NH)
Smith, Denny
Smith, Robert
Stenholm
Strang
Stump
Sweeney
Swindall
Tauke
Walker
Weber
Whittaker
Wylie
Zschau

NOT VOTING—10

Bonior (MI)
Broomfield
Downey
Glickman
Hefner
Hubbard
Lantos
Monson
Murtha
Schneider

□ 1730

Mr. HUNTER and Mr. ZSCHAU changed their votes from "aye" to "no."

Mr. LIVINGSTON changed his vote from "no" to "aye."

So the bill was passed.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

AUTHORIZING THE CLERK TO MAKE CORRECTIONS IN ENGROSSMENT OF H.R. 8, WATER QUALITY RENEWAL ACT OF 1985

Mr. HOWARD. Mr. Speaker, I ask unanimous consent that, in the engrossment of the bill H.R. 8 the Clerk be authorized to correct section numbers, cross references, and the table of contents and make such other technical and conforming amendments as may be necessary to reflect the actions of the House in amending the bill H.R. 8.

The SPEAKER. Is there objection to the request of the gentleman from New Jersey?

There was no objection.

Mr. HOWARD. Mr. Speaker, I ask unanimous consent to take from the Speaker's table the Senate bill (S. 1128) to amend the Clean Water Act, and for other purposes, and ask for its immediate consideration in the House.

The Clerk read the title of the Senate bill.

The SPEAKER. Is there objection to the request of the gentleman from New Jersey?

There was no objection.

The Clerk read the Senate bill, as follows:

S. 1128

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That this Act may be cited as the "Clean Water Act Amendments of 1985".

MOTION OFFERED BY MR. HOWARD

Mr. HOWARD. Mr. Speaker, I offer a motion.

The Clerk read as follows:

Mr. HOWARD moves to strike out all after the enacting clause of the Senate bill, S. 1128, and to insert in lieu thereof the text of H.R. 8, as passed, as follows:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS; AMENDMENTS TO FEDERAL WATER POLLUTION CONTROL ACT; DEFINITION OF ADMINISTRATOR.

(a) SHORT TITLE.—This Act may be cited as the "Water Quality Renewal Act of 1985".

(b) TABLE OF CONTENTS.—

Sec. 1. Short title; table of contents; amendments to Federal Water Pollution Control Act; definition of Administrator.
Sec. 2. Authorizations of appropriations.
Sec. 3. Authorizations for construction grants.
Sec. 4. Compliance deadlines.
Sec. 5. Individual control strategies for toxic pollutants.
Sec. 6. Policy for control of nonpoint sources of pollution.
Sec. 7. Control of nonpoint sources of pollution.
Sec. 8. Lake restoration guidance manual.
Sec. 9. Small flows clearinghouse.
Sec. 10. Eligible categories of projects.
Sec. 11. Time limit on resolving certain disputes.
Sec. 12. Federal share.
Sec. 13. Agreement on eligible costs; grantee certification of treatment process; turnkey contracts.
Sec. 14. Grant conditions; user charges on low-income residential users.
Sec. 15. Allotment of construction grant funds.
Sec. 16. Grants to States for establishment of water pollution control revolving funds.
Sec. 17. Modification for nonconventional pollutants.
Sec. 18. Discharges into marine waters.
Sec. 19. Filing deadline for treatment works modification.
Sec. 20. Application for ocean discharge modifications.
Sec. 21. Innovative technology compliance deadlines for direct dischargers.
Sec. 22. Variances from the application of effluent limitations.
Sec. 23. Coal remining operations.
Sec. 24. Water quality criteria.
Sec. 25. Test procedures.
Sec. 26. Pretreatment standards.
Sec. 27. Inspection and entry.
Sec. 28. Criminal penalties.
Sec. 29. Civil penalties.
Sec. 30. Administrative penalties.
Sec. 31. Relationship to other laws.
Sec. 32. Marine sanitation devices.
Sec. 33. Clean lakes.
Sec. 34. NPDES permits.
Sec. 35. Audits.
Sec. 36. Commonwealth of the Northern Mariana Islands.
Sec. 37. Agricultural stormwater discharges.
Sec. 38. Citizen suits.
Sec. 39. Reports to Congress.
Sec. 40. Indian tribes.
Sec. 41. Definition of point source.
Sec. 42. Chesapeake and Narragansett Bays.
Sec. 43. New York and New Jersey harbor area.
Sec. 44. San Francisco Bay.
Sec. 45. Maintenance of water quality in estuaries.
Sec. 46. Research on effects of pollutants.
Sec. 47. Sewage sludge.
Sec. 48. Puget Sound.
Sec. 49. Ocean discharge research projects.
Sec. 50. Grants for replacement of contaminated groundwater.
Sec. 51. Unconsolidated quarternary aquifer.
Sec. 52. Grants for protecting groundwater quality.
Sec. 53. Demonstration program on acidified lakes.
Sec. 54. Newtown Creek, New York.
Sec. 55. San Diego, California.
Sec. 56. Naco, Arizona.
Sec. 57. Limitation on discharge of raw sewage by New York City.
Sec. 58. Deer Island treatment plant, Massachusetts.
Sec. 59. Great Lakes International Coordinating Office.
Sec. 60. Oakwood Beach and Red Hook projects, New York.
Sec. 61. Chippewa Township, Pennsylvania.
Sec. 62. Des Moines, Iowa.
Sec. 63. Wastewater reclamation demonstration.
Sec. 64. Boston Harbor and adjacent waters.
Sec. 65. Treatment works in Washington State.
Sec. 66. Improvement projects.
Sec. 67. Study of regulation of de minimis discharges.
Sec. 68. Study of effectiveness of innovative and alternative processes and techniques.
Sec. 69. Water quality improvement study.
Sec. 70. Study of testing procedures.
Sec. 71. Study of pretreatment of toxic pollutants.
Sec. 72. Studies of water pollution problems in aquifers.
Sec. 73. Great Lakes consumptive uses study.
Sec. 74. Sulfide corrosion study.
Sec. 75. Pulp mill study.
Sec. 76. Study of rainfall induced infiltration into sewer systems.
Sec. 77. Study of pH in discharges from mining operations.
Sec. 78. Study of pollution in Lake Pend Oreille, Idaho.
Sec. 79. Limitation on payments.
Sec. 80. Rights and liabilities under other Federal statutes.

*SEC. 67. STUDY OF REGULATION OF DE MINIMIS DISCHARGES.*

*(a) STUDY.—The Administrator shall study the feasibility and desirability of eliminating the regulation of discharges of pollutants into the navigable waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant.*

*(b) REPORT.—Not later than one year after the date of the enactment of this Act, the Administrator shall submit a report on the results of such study along with recommendations to the Committee on Public Works and Transportation of the House of Representatives and the Committee on Environment and Public Works of the Senate.*



## WATER QUALITY RENEWAL ACT OF 1985

Mr. SIMPSON. Mr. President, I ask the Chair to lay before the Senate a message from the House of Representatives on S. 1128.

The assistent legislative clerk laid before the Senate the amendment of the House of Representatives to the



bill (S. 1128) to amend the Clean Water Act, and for other purposes.

(The amendment of the House is printed in the RECORD of July 23, 1985, beginning at page H6117.

Mr. SIMPSON. Mr. President, I move that the Senate disagree to the House amendments and request a conference on the disagreeing votes thereon and the Chair be authorized to appoint conferees on the part of the Senate.

The motion was agreed to, and the Presiding Officer [Mr. HECHT] appointed Mr. STAFFORD, Mr. CHAFEE, Mr. SIMPSON, Mr. DURENBERGER, Mr. BENTSEN, Mr. MITCHELL, and Mr. MOYNIHAN conferees on the part of Senate.

APPOINTMENT OF CONFEREES ON S. 1128, CLEAN WATER ACT AMENDMENTS OF 1985

Mr. HOWARD. Mr. Speaker, I ask unanimous consent to take from the Speaker's table the Senate bill (S. 1128) to amend the Clean Water Act, and for other purposes, insist on the House amendments, and agree to the conference requested by the Senate.

The SPEAKER. Is there objection to the request of the gentleman from New Jersey? The Chair hears none, and appoints the following conferees: Messrs. ROE, ANDERSON, MINETA, OBERSTAR, EDGAR, TOWNS, SNYDER, HAMMERSCHMIDT, STANGELAND, and CLINGER;

And additional conferees as follows:

Mr. NOWAK, solely for sections 59 and 73 of the House amendment and modifications committed to conference; and

Mr. ROWLAND of Georgia, solely for sections 5; 16(b)(1)(b); 16(h)(3)(a); 24(e)(7); 26(b)(3); and 51(a)(2) of the House amendment and modifications committed to conference.



REPORTS OF COMMITTEES ON PUBLIC BILLS AND RESOLUTIONS

Under clause 2 of the rule XIII, reports of committees were delivered to the Clerk for printing and reference to the proper calendar, as follows:

Mr. HOWARD: Committee of Conference. Conference report on S. 1128 (Rept. 99-1004). Ordered to be printed.

U.S House of Representatives, Conference Report 99 - 1004, Amending the Clean Water Act, ordered to be printed October 15, 1986.

## Action of the Conference (page 172)

**STUDY OF REGULATION OF DE MINIMIS DISCHARGES**

*Senate bill*

No comparable provision.

*House amendment*

The House amendment directs the Administrator to study the feasibility and desirability of eliminating the regulation of discharges of pollutants into the navigable waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant.

*Conference substitute*

The conference substitute adopts the House amendment with modifications to direct a study of discharges of pollutants to determine whether or not there are discharges in amounts which, in terms of volume, concentration, and type of pollutant, are not significant, and to determine the most effective and appropriate methods of regulating such discharges.

## Final Wording (pages 83 & 84)

*SEC. 516. STUDY OF DE MINIMIS DISCHARGES.*

*(a) STUDY.—The Administrator shall conduct a study of discharges of pollutants into the navigable waters and their regulation under the Federal Water Pollution Control Act to determine whether or not there are discharges of pollutants into such waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant and to determine the most effective and appropriate methods of regulating any such discharges.*

*(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit to the Committee on Public Works and Transportation of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the results of such study along with recommendations and findings concerning the most effective and appropriate methods of regulating any discharges of pollutants into the navigable waters in amounts which the Administrator determines under such study to be not significant.*

S. 1128, Clean Water Act Amendments. Pocket Vetoed.

# Calendar No. 1

100TH CONGRESS
1ST SESSION

# S. 1

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

JANUARY 6, 1987

Mr. BYRD (for Mr. BURDICK) (for himself, Mr. CHAFEE, Mr. MITCHELL, Mr. STAFFORD, Mr. BYRD, Mr. MOYNIHAN, Mr. ADAMS, Mr. ARMSTRONG, Mr. BAUCUS, Mr. BENTSEN, Mr. BIDEN, Mr. BINGAMAN, Mr. BOREN, Mr. BRADLEY, Mr. BUMPERS, Mr. CHILES, Mr. COHEN, Mr. CONRAD, Mr. CRANSTON, Mr. D'AMATO, Mr. DANFORTH, Mr. DASCHLE, Mr. DECONCINI, Mr. DIXON, Mr. DODD, Mr. DOMENICI, Mr. DURENBERGER, Mr. EVANS, Mr. EXON, Mr. FORD, Mr. FOWLER, Mr. GLENN, Mr. GORE, Mr. GRAHAM, Mr. HARKIN, Mr. HEINZ, Mr. HOLLINGS, Mr. HUMPHREY, Mr. INOUYE, Mr. KASTEN, Mr. KERRY, Mr. KENNEDY, Mr. LAUTENBERG, Mr. LEAHY, Mr. LEVIN, Mr. LUGAR, Mr. MCCONNELL, Mr. MELCHER, Mr. METZENBAUM, Ms. MIKULSKI, Mr. NUNN, Mr. PACKWOOD, Mr. PELL, Mr. PRESSLER, Mr. PROXMIRE, Mr. PRYOR, Mr. REID, Mr. RIEGLE, Mr. ROCKEFELLER, Mr. ROTH, Mr. RUDMAN, Mr. SANFORD, Mr. SARBANES, Mr. SASSER, Mr. SIMON, Mr. SPECTER, Mr. SYMMS, Mr. THURMOND, Mr. TRIBLE, Mr. WARNER, Mr. WEICKER, Mr. WILSON, Mr. WIRTH, and Mr. ZORINSKY) introduced the following bill; which was read twice and ordered to be placed on the calendar

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# A BILL

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS; AMEND-**
4 **MENTS TO FEDERAL WATER POLLUTION CON-**
5 **TROL ACT; DEFINITION OF ADMINISTRATOR.**

6 (a) SHORT TITLE.—This Act may be cited as the
7 "Water Quality Act of 1987".

8 (b) TABLE OF CONTENTS.—

Sec. 1. Short title; table of contents; amendments to Federal Water Pollution Control Act; definition of Administrator.
Sec. 2. Limitation on payments.

TITLE I—AMENDMENTS TO TITLE I

Sec. 101. Authorizations of appropriations.
Sec. 102. Small flows clearinghouse.
Sec. 103. Chesapeake Bay.
Sec. 104. Great Lakes.
Sec. 105. Research on effects of pollutants.

TITLE II—CONSTRUCTION GRANTS AMENDMENTS

Sec. 201. Time limit on resolving certain disputes.
Sec. 202. Federal share.
Sec. 203. Agreement on eligible costs.
Sec. 204. Design/build projects.
Sec. 205. Grant conditions; user charges on low-income residential users.
Sec. 206. Allotment formula.
Sec. 207. Rural set aside.
Sec. 208. Innovative and alternative projects.
Sec. 209. Regional organization funding.
Sec. 210. Marine CSO's and estuaries.
Sec. 211. Authorization for construction grants.
Sec. 212. State water pollution control revolving funds.
Sec. 213. Improvement projects.
Sec. 214. Chicago tunnel and reservoir project.
Sec. 215. Ad valorem tax dedication.

TITLE III—STANDARDS AND ENFORCEMENTS

Sec. 301. Compliance dates.
Sec. 302. Modification for nonconventional pollutants.
Sec. 303. Discharges into marine waters.
Sec. 304. Filing deadline for treatment works modification.
Sec. 305. Innovative technology compliance deadlines for direct dischargers.
Sec. 306. Fundamentally different factors.
Sec. 307. Coal remining operations.

Sec. 308. Individual control strategies for toxic pollutants.
Sec. 309. Pretreatment standards.
Sec. 310. Inspection and entry.
Sec. 311. Marine sanitation devices.
Sec. 312. Criminal penalties.
Sec. 313. Civil penalties.
Sec. 314. Administrative penalties.
Sec. 315. Clean lakes.
Sec. 316. Management of nonpoint sources of pollution.
Sec. 317. National estuary program.
Sec. 318. Unconsolidated quaternary aquifer.

TITLE IV—PERMITS AND LICENSES

Sec. 401. Stormwater runoff from oil, gas, and mining operations.
Sec. 402. Additional pretreatment of conventional pollutants not required.
Sec. 403. Partial NPDES program.
Sec. 404. Anti-backsliding.
Sec. 405. Municipal and industrial stormwater discharges.
Sec. 406. Sewage sludge.
Sec. 407. Log transfer facilities.

TITLE V—MISCELLANEOUS PROVISIONS

Sec. 501. Audits.
Sec. 502. Commonwealth of the Northern Mariana Islands.
Sec. 503. Agricultural stormwater discharges.
Sec. 504. Protection of interests of United States in citizen suits.
Sec. 505. Judicial review and award of fees.
Sec. 506. Indian tribes.
Sec. 507. Definition of point source.
Sec. 508. Special provisions regarding certain dumping sites.
Sec. 509. Ocean discharge research project.
Sec. 510. San Diego, California.
Sec. 511. Limitation on discharge of raw sewage by New York City.
Sec. 512. Oakwood Beach and Red Hook Projects, New York.
Sec. 513. Boston Harbor and adjacent waters.
Sec. 514. Wastewater reclamation demonstration.
Sec. 515. Des Moines, Iowa.
Sec. 516. Study of de minimis discharges.
Sec. 517. Study of effectiveness of innovative and alternative processes and techniques.
Sec. 518. Study of testing procedures.
Sec. 519. Study of pretreatment of toxic pollutants.
Sec. 520. Studies of water pollution problems in aquifers.
Sec. 521. Great Lakes consumptive use study.
Sec. 522. Sulfide corrosion study.
Sec. 523. Study of rainfall induced infiltration into sewer systems.
Sec. 524. Dam water quality study.
Sec. 525. Study of pollution in Lake Pend Oreille, Idaho.

20 **SEC. 516. STUDY OF DE MINIMIS DISCHARGES.**

21 (a) STUDY.—The Administrator shall conduct a study of
22 discharges of pollutants into the navigable waters and their
23 regulation under the Federal Water Pollution Control Act to
24 determine whether or not there are discharges of pollutants
25 into such waters in amounts which, in terms of volume, con-





1 centration, and type of pollutant, are not significant and to
2 determine the most effective and appropriate methods of reg-
3 ulating any such discharges.

4 (b) REPORT.—Not later than 1 year after the date of
5 the enactment of this Act, the Administrator shall submit to
6 the Committee on Public Works and Transportation of the
7 House of Representatives and the Committee on Environ-
8 ment and Public Works of the Senate a report on the results
9 of such study along with recommendations and findings con-
10 cerning the most effective and appropriate methods of regu-
11 lating any discharges of pollutants into the navigable waters
12 in amounts which the Administrator determines under such
13 study to be not significant.

100TH CONGRESS
1ST SESSION

# H. R. 1

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JANUARY 6, 1987

Mr. HOWARD (for himself, Mr. HAMMERSCHMIDT, Mr. ROE, Mr. STANGELAND, Mr. NOWAK, Mr. ANDERSON, Mr. ANDREWS, Mr. APPLEGATE, Mr. ARCHER, Mr. ATKINS, Mr. BATEMAN, Mrs. BENTLEY, Mr. BEVILL, Mr. BLILEY, Mr. BOEHLERT, Mr. BORSKI, Mr. BOSCO, Mrs. BOXER, Mr. BROWN of California, Mr. BUSTAMANTE, Mr. CALLAHAN, Mr. CARDIN, Mr. CARPER, Mr. CHANDLER, Mr. CHAPMAN, Mr. CLARKE, Mr. CLINGER, Mr. COLEMAN of Texas, Mrs. COLLINS, Mr. COURTER, Mr. CROCKETT, Mr. DARDEN, Mr. DEFAZIO, Mr. DE LUGO, Mr. DICKS, Mr. DINGELL, Mr. DIOGUARDI, Mr. DORGAN of North Dakota, Mr. DOWNEY of New York, Mr. DURBIN, Mr. DWYER of New Jersey, Mr. DYSON, Mr. ECKART, Mr. EVANS, Mr. FASCELL, Mr. FAZIO, Mr. FEIGHAN, Mr. FIELDS, Mr. FISH, Mr. FLORIO, Mr. FOGLIETTA, Mr. FORD of Michigan, Mr. FRANK, Mr. GALLO, Mr. GEJDENSON, Mr. GILMAN, Mr. GONZALEZ, Mr. GOODLING, Mr. GRADISON, Mr. GRANT, Mr. GREEN, Mr. GUARINI, Mr. GUNDERSON, Mr. HAMILTON, Mr. HAYES of Louisiana, Mr. HENRY, Mr. HORTON, Mr. HOYER, Mr. HUGHES, Mrs. JOHNSON of Connecticut, Mr. JONTZ, Mr. KANJORSKI, Mr. KASTENMEIER, Mr. KILDEE, Mr. KLECZKA, Mr. LAFALCE, Mr. LANTOS, Mr. LEHMAN of Florida, Mr. LELAND, Mr. LEVIN of Michigan, Mr. LEWIS of Florida, Mr. LIGHTFOOT, Mr. LIPINSKI, Mr. LOWERY of California, Mr. THOMAS A. LUKEN, Mr. MACKAY, Mr. MANTON, Mrs. MARTIN of Illinois, Mr. MATSUI, Mr. MCCOLLUM, Mr. MCDADE, Mr. MCGRATH, Mr. MCHUGH, Mr. MCKINNEY, Mr. MCMILLAN of North Carolina, Mr. MILLER of California, Mr. MINETA, Mr. MOLINARI, Mr. MOODY, Mr. MRAZEK, Mr. MURPHY, Mr. NATCHER, Mr. NEAL, Mr. NELSON of Florida, Ms. OAKAR, Mr. OBERSTAR, Mr. OLIN, Mr. OWENS of New York, Mr. PACKARD, Mr. PANETTA, Mr. PERKINS, Mr. RAHALL, Mr. RICHARDSON, Mr. RINALDO, Mr. RODINO, Mr. ROSE, Mr. ROSTENKOWSKI, Mrs. ROUKEMA, Mr. ROWLAND of Georgia, Mr. ROWLAND of Connecticut, Mr. RUSSO, Mr. SAVAGE, Mr. SAXTON, Mr. SCHEUER, Miss SCHNEIDER, Mr. SCHUETTE, Mr. SCHUMER, Ms. SLAUGHTER of New York, Mr. SENSENBRENNER, Mr. SHAW, Mr. SHUSTER, Mr. SIKORSKI, Mr. SKAGGS, Mr. SMITH of Iowa, Mr. SMITH of New Jersey, Mr. SOLOMON, Mr. ST GERMAIN, Mr. STALLINGS, Mr. STRATTON, Mr. STUDDS, Mr. SUNDQUIST, Mr. SUNIA, Mr. SWIFT, Mr. THOMAS of

Georgia, Mr. TORRES, Mr. TORRICELLI, Mr. TOWNS, Mr. TRAFICANT, Mr. VALENTINE, Mr. VENTO, Mr. VISCLOSKY, Mr. WILLIAMS, Mr. WILSON, Mr. WISE, Mr. WOLPE, Mr. WORTLEY, Mr. WYDEN, and Mr. YATES) introduced the following bill; which was referred jointly to the Committees on Public Works and Transportation and Merchant Marine and Fisheries for consideration of such provisions of the bill as fall within that committee's jurisdiction pursuant to clause 1(n), rule X

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# A BILL

To amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS; AMEND-**
4 **MENTS TO FEDERAL WATER POLLUTION CON-**
5 **TROL ACT; DEFINITION OF ADMINISTRATOR.**

6 (a) SHORT TITLE.—This Act may be cited as the
7 "Water Quality Act of 1987".

8 (b) TABLE OF CONTENTS.—

Sec. 1. Short title; table of contents; amendments to Federal Water Pollution Control Act; definition of Administrator.
Sec. 2. Limitation on payments.

TITLE I—AMENDMENTS TO TITLE I

Sec. 101. Authorizations of appropriations.
Sec. 102. Small flows clearinghouse.
Sec. 103. Chesapeake Bay.
Sec. 104. Great Lakes.
Sec. 105. Research on effects of pollutants.

TITLE II—CONSTRUCTION GRANTS AMENDMENTS

Sec. 201. Time limit on resolving certain disputes.
Sec. 202. Federal share.
Sec. 203. Agreement on eligible costs.
Sec. 204. Design/build projects.

Sec. 512. Oakwood Beach and Red Hook Projects, New York.
Sec. 513. Boston Harbor and adjacent waters.
Sec. 514. Wastewater reclamation demonstration.
Sec. 515. Des Moines, Iowa.
Sec. 516. Study of de minimis discharges.
Sec. 517. Study of effectiveness of innovative and alternative processes and techniques.
Sec. 518. Study of testing procedures.
Sec. 519. Study of pretreatment of toxic pollutants.
Sec. 520. Studies of water pollution problems in aquifers.
Sec. 521. Great Lakes consumptive use study.
Sec. 522. Sulfide corrosion study.
Sec. 523. Study of rainfall induced infiltration into sewer systems.
Sec. 524. Dam water quality study.
Sec. 525. Study of pollution in Lake Pend Oreille, Idaho.



20 **SEC. 516. STUDY OF DE MINIMIS DISCHARGES.**

21 (a) STUDY.—The Administrator shall conduct a study of
22 discharges of pollutants into the navigable waters and their
23 regulation under the Federal Water Pollution Control Act to
24 determine whether or not there are discharges of pollutants
25 into such waters in amounts which, in terms of volume, con-

1 centration, and type of pollutant, are not significant and to
2 determine the most effective and appropriate methods of reg-
3 ulating any such discharges.

4 (b) REPORT.—Not later than 1 year after the date of
5 the enactment of this Act, the Administrator shall submit to
6 the Committee on Public Works and Transportation of the
7 House of Representatives and the Committee on Environ-
8 ment and Public Works of the Senate a report on the results
9 of such study along with recommendations and findings con-
10 cerning the most effective and appropriate methods of regu-
11 lating any discharges of pollutants into the navigable waters
12 in amounts which the Administrator determines under such
13 study to be not significant.

Mr. HAMMERSCHMIDT.

The new language will properly reduce the universe of permits required for storm water from millions to thousands without reducing the protection of the environment. We established a mechanism that will require permits only where necessary—rather than in every instance. Without these changes, local, State, and Federal officials would be inundated with an enormous permitting workload even though most of the discharges would not have significant environmental impacts.

Mr. STANGELAND. Mr. Speaker, I rise to address provisions in H.R. 1, the Water Quality Act of 1987. This legislation is the result of conference discussions in the 99th Congress spanning over 6 months and work, by House and Senate committees spanning over 4 years. Weeks of hearings, thousands of pages of testimony, and countless hours of analysis, discussion and debate led to development of this vitally important environmental legislation.

H.R. 1 should look strikingly familiar to each of us. This legislation—like its counterpart S. 1—is virtually identical to the conference report on S. 1128, which passed the House and Senate unanimously—by combined votes of 504 to 0—less than 3 months ago but was pocket vetoed by the President on November 6. As a matter of fact, H.R. 1 is the same as S. 1128 except for a few purely technical changes, such as replacing 1986 with 1987 in the act's name to reflect the new year.

I should also point out that despite its immediate consideratoin in the 100th Congress, H.R. 1 has a complete legislative history in the form of documents from the 99th Congress. To determine congressional intent in H.R. 1, one should first consult the conference report on S. 1128 and then, if necessary, committee reports and floor statements for the 99th Congress' House- and Senate-passed bills (H.R. 8 and S. 1128). These documents, particularly S. 1128's conference report, provide a detailed legislative history for H.R. 1 even though the new legislation introduced just 2 days ago has no committee report, conference report, or statement of managers from the 100th Congress.

The SPEAKER pro tempore. Under the rule, the previous question is ordered.

The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

The SPEAKER pro tempore. The question is on passage of the bill.

The question was taken; and the Speaker pro tempore announced that the ayes appeared to have it.

Mr. HOWARD. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The vote was taken by electronic device, and there were—yeas 406, nays 8, not voting 18, as follows:

[Roll No. 8]

YEAS—406

Ackerman
Akaka
Alexander
Anderson
Andrews
Anthony
Applegate
Archer
Armey
Aspin
Atkins
AuCoin
Badham
Baker
Ballenger
Barnard
Barton
Bateman
Bates
Bellenson
Bennett
Bentley
Bereuter
Bevill
Biaggi
Bilbray
Bilirakis
Billey
Boehlert
Boggs
Boland
Bonior (MI)
Bonker
Borski
Bosco
Boucher
Boulter
Boxer
Brooks
Broomfield
Brown (CA)
Brown (CO)
Bruce
Bryant
Buechner
Bunning
Bustamante
Byron
Callahan
Campbell
Cardin
Carper
Carr
Chandler
Chapman
Chappell
Clarke
Clinger
Coats
Coble
Coelho
Coleman (MO)
Coleman (TX)
Collins
Combest
Conte
Conyers
Cooper
Coughlin
Courter
Coyne
Craig
Crockett
Daniel
Darden
Daub
Davis (IL)
Davis (MI)
de la Garza
DePazio
DeLay
Dellums
Derrick
DeWine
Dickinson
Dicks
Dingell
DioGuardi
Dixon
Donnelly
Dorgan (ND)
Dornan (CA)
Dowdy
Downey
Dreier
Duncan
Durbin
Dwyer
Dymally
Dyson
Early
Eckart
Edwards (CA)
Edwards (OK)
Emerson
English
Erdreich
Espy
Evans
Fascell
Fawell
Fazio
Feighan
Fields
Fish
Flake
Flippo
Florio
Foglietta
Foley
Ford (MI)
Ford (TN)
Frank
Frenzel
Frost
Gallegly
Gallo
Garcia
Gaydos
Gejdenson
Gekas
Gibbons
Gilman
Gingrich
Glickman
Gonzalez
Goodling
Gordon
Gradison
Grandy
Grant
Gray (IL)
Gray (PA)
Green
Guarini
Gunderson
Hall (OH)
Hall (TX)
Hamilton
Hammerschmidt
Hansen
Harris
Hastert
Hatcher
Hawkins
Hayes (IL)
Hayes (LA)
Hefley
Hefner
Henry
Herger
Hertel
Hiler
Hochbrueckner
Holloway
Hopkins
Horton
Houghton
Howard
Hoyer
Hubbard
Huckaby
Hughes
Hunter
Hutto
Hyde
Inhofe
Ireland
Jacobs
Jeffords
Jenkins
Johnson (CT)
Johnson (SD)
Jones (NC)
Jones (TN)
Jontz
Kanjorski
Kaptur
Kastenmeier
Kennedy
Kennelly
Kildee
Kleczka
Kolbe
Kolter
Konnyu
Kostmayer
Kyl
LaFalce
Lagomarsino
Lancaster
Lantos
Latta
Leach (IA)
Leath (TX)
Lehman (CA)
Lehman (FL)
Leland
Levin (MI)
Levine (CA)
Lewis (CA)
Lewis (FL)
Lewis (GA)
Lightfoot
Lipinski
Livingston
Lloyd
Lott
Lowery (CA)
Lowry (WA)
Lujan
Luken, Thomas
Lungren
Mack
MacKay
Madigan
Manton
Markey
Martin (NY)
Martinez
Matsui
Mavroules
Mazzoli
McCandless
McCloskey
McCollum
McCurdy
McDade
McEwen
McGrath
McHugh
McKinney
McMillan (NC)
McMillen (MD)
Meyers
Mfume
Miller
Michel
Miller (CA)
Miller (OH)
Miller (WA)
Mineta
Moakley
Molinari
Mollohan
Montgomery
Moody
Moorhead
Morella
Morrison (CT)
Morrison (WA)
Mrazek
Murphy
Murtha
Myers
Nagle
Natcher
Neal
Nelson
Nichols
Nielson
Nowak
Oakar
Oberstar
Obey
Olin
Owens (NY)
Owens (UT)
Oxley
Packard
Panetta
Parris
Pashayan
Patterson
Penn
Penny
Pepper
Perkins
Petri
Pickett
Porter
Price (IL)
Price (NC)
Purcell
Rahall
Rangel
Ravenel
Ray
Regula
Rhodes
Richardson
Ridge
Rinaldo
Ritter
Roberts
Robinson
Rodino
Roe
Roemer
Rogers
Rostenkowski
Roth
Roukema
Rowland (CT)
Rowland (GA)
Roybal
Russo
Sabo
Saiki
Savage
Sawyer
Saxton
Schaefer
Scheuer
Schneider
Schroeder
Schuette
Schulze
Schumer
Sensenbrenner
Sharp
Shaw
Shumway
Shuster
Sikorski
Sisisky
Skaggs
Skeen
Skelton
Slaughter (NY)
Slaughter (VA)
Smith (FL)
Smith (IA)
Smith (NE)
Smith (NJ)
Smith (TX)
Smith, Denny (OR)
Smith, Robert (NH)
Smith, Robert (OR)
Solarz
Solomon
Spratt
St. Germain
Staggers
Stallings
Stangeland
Stark
Stenholm
Stokes
Studds
Sundquist
Swift
Swindall
Synar
Tallon
Tauke
Taylor
Thomas (CA)
Thomas (GA)
Torres
Torricelli
Towns
Traficant
Traxler
Udall
Upton
Valentine
Vander Jagt
Vento
Visclosky
Volkmer
Vucanovich
Walgren
Walker
Watkins
Waxman
Weber
Weiss
Weldon
Wheat
Whitten
Williams
Wilson
Wise
Wolf
Wolpe
Worley
Wyden
Wylie
Yates
Yatron
Young (AK)
Young (FL)

NAYS—8

Bartlett
Burton (IN)
Cheney
Crane
Dannemeyer
Lukens, Donald
Marlenee
Stump

NOT VOTING—18

Annunzio
Berman
Boner (TN)
Burton (CA)
Clay
Gephardt
Green
Kasich
Kemp
Lent
Martin (IL)
Orin
Pickle
Quillen
Rose
Slattery
Snowe
Spence

□ 1440

Mr. BURTON of Indiana changed his vote from "yea" to "nay."

So the bill was passed.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

## AMENDMENTS SUBMITTED

## WATER QUALITY ACT

### DOLE AMENDMENT NO. 1

Mr. DOLE proposed an amendment to the bill (H.R. 1) to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters, and for other purposes; as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

TABLE OF CONTENTS

(a) SHORT TITLE.—This Act may be cited as the "Water Quality Act of 1987".

(b) TABLE OF CONTENTS.—

Sec. 1. Short title; table of contents; amendments to Federal Water Pollution Control Act; definition of Administrator.
Sec. 2. Limitation on payments.

TITLE I—AMENDMENTS TO TITLE I

Sec. 101. Authorizations of appropriations.
Sec. 102. Chesapeake Bay.
Sec. 103. Great Lakes.
Sec. 104. Research on effects of pollutants.

TITLE II—CONSTRUCTION GRANTS AMENDMENTS

Sec. 201. Eligibilities, CSOs, Dispute Resolution, Limitations.
Sec. 202. Federal share.
Sec. 203. Agreement on eligible costs.
Sec. 204. Design/build projects.
Sec. 205. Grant conditions; user charges on low-income residential users.
Sec. 206. Allotment formula.
Sec. 207. Rural set aside, Innovative and alternative projects, and Nonpoint source programs.
Sec. 208. Regional organization funding.
Sec. 209. Authorization for construction grants.
Sec. 210. Grants to States for making water pollution control loans.
Sec. 211. Ad valorem tax dedication.
Sec. 212. Improvement Projects.
Sec. 213. Chicago Tunnel and Reservoir Project.

TITLE III—STANDARDS AND ENFORCEMENTS

Sec. 301. Compliance dates.
Sec. 302. Modification for nonconventional pollutants.
Sec. 303. Discharges into marine waters.
Sec. 304. Filing deadline for treatment works modification.
Sec. 305. Innovative technology compliance deadlines for direct dischargers.
Sec. 306. Fundamentally different factors.
Sec. 307. Coal remining operations.
Sec. 308. Individual control strategies for toxic pollutants.
Sec. 309. Pretreatment standards.
Sec. 310. Inspection and entry.
Sec. 311. Marine sanitation devices.
Sec. 312. Criminal penalties.
Sec. 313. Civil penalties.
Sec. 314. Administrative penalties.
Sec. 315. Clean lakes.
Sec. 316. Management of nonpoint sources of pollution.
Sec. 317. National estuary program.
Sec. 318. Unconsolidated quaternary aquifer.

TITLE IV—PERMITS AND LICENSES

Sec. 401. Stormwater runoff from oil, gas, and mining operations.
Sec. 402. Additional pretreatment of conventional pollutants not required.
Sec. 403. Partial NPDES program.
Sec. 404. Anti-backsliding.
Sec. 405. Municipal and industrial stormwater discharges.
Sec. 406. Sewage sludge.
Sec. 407. Log transfer facilities.

TITLE V—MISCELLANEOUS PROVISIONS

Sec. 501. Audits.
Sec. 502. Commonwealth of the Northern Mariana Islands.
Sec. 503. Agricultural stormwater discharges.
Sec. 504. Protection of interests of United States in citizen suits.
Sec. 505. Judicial review and award of fees.
Sec. 506. Indian tribes.
Sec. 507. Definition of point source.
Sec. 508. Special provisions regarding certain dumping sites.
Sec. 509. Ocean discharge research project.
Sec. 510. Limitation on discharge of raw sewage by New York City.
Sec. 511. Study of de minimis discharges.
Sec. 512. Study of effectiveness of innovative and alternative processes and techniques.
Sec. 513. Study of testing procedures.
Sec. 514. Study of pretreatment of toxic pollutants.
Sec. 515. Studies of water pollution problems in aquifers.
Sec. 516. Great Lakes consumptive use study.
Sec. 517. Sulfide corrosion study.
Sec. 518. Study of rainfall induced infiltration into sewer systems.
Sec. 519. Dam water quality study.
Sec. 520. Study of pollution in Lake Pend Oreille, Idaho.
Sec. 521. San Diego, California.
Sec. 522. Oakwood Beach and Red Hook Projects, New York.
Sec. 523. Boston Harbor and Adjacent Waters.
Sec. 524. Wastewater Reclamation Demonstration.
Sec. 525. Des Moines, Iowa.
Sec. 526. Study of De Minimis Discharges.
Sec. 527. Amendment to the Water Resources Development Act.

SEC. 511. STUDY OF DE MINIMIS DISCHARGES.

(a) STUDY.—The Administrator shall conduct a study of discharges of pollutants into the navigable waters and their regulation under the Federal Water Pollution Control Act to determine whether or not there are discharges of pollutants into such waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant and to determine the most effective and appropriate methods of regulating any such discharges.

(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit to the Committee on Public Works and Transportation of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the results of such study along with recommendations and findings concerning the most effective and appropriate methods of regulating any discharges of pollutants into the navigable waters in amounts which the Administrator determines under such study to be not significant.



SEC. 511. STUDY OF De MINIMIS DISCHARGES.

(a) STUDY.—The Administrator shall conduct a study of discharges of pollutants into the navigable waters and their regulation under the Federal Pollution Control Act to determine whether or not there are discharges of pollutants into such waters in amounts which, in terms of volume, concentration, and type of pollutant, are not significant and to determine the most effective and appropriate methods of regulating any such discharges.

(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Administrator shall submit to the Committee on Public Works and Transportation of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the results of such study along with recommendations and findings concerning the most effective and appropriate methods of regulating any discharges of pollutants into the navigable waters in amounts which the Administrator determines under such study to be not significant.

## WATER QUALITY ACT OF 1987

The PRESIDING OFFICER. Under the previous order, the hour of 2 p.m. having arrived, the Senate will now resume consideration of the unfinished business, H.R. 1, which the clerk will now report.

The assistant legislative clerk read as follows:

A bill (H.R. 1) to amend the Federal Water Pollution Control Act to provide for the renewal of the quality of the Nation's waters and for other purposes.

The Senate resumed consideration of the bill.

AMENDMENT NO. 1

The PRESIDING OFFICER. The pending question is on amendment No. 1 on which there shall be 2 hours of debate to be equally divided, controlled by the majority and minority leaders or their designees.

The PRESIDING OFFICER. Under the previous order, the hour of 4 o'clock having arrived, the Senate will now vote on amendment No. 1. The clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. SIMPSON. I announce that the Senator from Missouri [Mr. BOND] is absent due to illness.

The PRESIDING OFFICER (Mr. BREAUX). Are there any other Senators in the Chamber who desire to vote?

The result was announced—yeas 17, nays 82, as follows:

[Rollcall Vote No. 3 Leg.]

YEAS—17

| | | |
|---|---|---|
| Armstrong | Hatch | Nickles |
| Cochran | Hecht | Simpson |
| Dole | Heflin | Symms |
| Exon | Helms | Thurmond |
| Garn | Kassebaum | Wallop |
| Gramm | McClure | |

NAYS—82

| | | |
|---|---|---|
| Adams | Glenn | Packwood |
| Baucus | Gore | Pell |
| Bentsen | Graham | Pressler |
| Biden | Grassley | Proxmire |
| Bingaman | Harkin | Pryor |
| Boren | Hatfield | Quayle |
| Boschwitz | Heinz | Reid |
| Bradley | Hollings | Riegle |
| Breaux | Humphrey | Rockefeller |
| Bumpers | Inouye | Roth |
| Burdick | Johnston | Rudman |
| Byrd | Kasten | Sanford |
| Chafee | Kennedy | Sarbanes |
| Chiles | Kerry | Sasser |
| Cohen | Lautenberg | Shelby |
| Conrad | Leahy | Simon |
| Cranston | Levin | Specter |
| D'Amato | Lugar | Stafford |
| Danforth | Matsunaga | Stennis |
| Daschle | McCain | Stevens |
| DeConcini | McConnell | Trible |
| Dixon | Melcher | Warner |
| Dodd | Metzenbaum | Weicker |
| Domenici | Mikulski | Wilson |
| Durenberger | Mitchell | Wirth |
| Evans | Moynihan | Zorinsky |
| Ford | Murkowski | |
| Fowler | Nunn | |

NOT VOTING—1

Bond

So the amendment (No. 1) was rejected.

Mr. MITCHELL. Mr. President, I move to reconsider the vote by which the amendment was rejected.

Mr. BURDICK. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question is on the third reading of the bill.

The bill was ordered to a third reading and was read the third time.

The PRESIDING OFFICER. Under the previous order, the Senate will now have a rollcall vote on adoption of H.R. 1.

The bill having been read the third time, the question is, Shall the bill pass?

The yeas and nays have been ordered, and the clerk will call the roll.

The bill clerk called the roll.

Mr. SIMPSON announced that the Senator from Missouri [Mr. BOND] is absent due to illness.

I further announce that, if present and voting, the Senator from Missouri [Mr. BOND] would vote "yea."

The PRESIDING OFFICER. Are there any other Senators in the Chamber desiring to vote?

The result was announced—yeas 93, nays 6, as follows:

[Rollcall Vote No. 4 Leg.]

YEAS—93

| | | |
|---|---|---|
| Adams | Garn | Moynihan |
| Baucus | Glenn | Murkowski |
| Bentsen | Gore | Nunn |
| Biden | Graham | Packwood |
| Bingaman | Grassley | Pell |
| Boren | Harkin | Pressler |
| Boschwitz | Hatch | Proxmire |
| Bradley | Hatfield | Pryor |
| Breaux | Hecht | Quayle |
| Bumpers | Heflin | Reid |
| Burdick | Heinz | Riegle |
| Byrd | Hollings | Rockefeller |
| Chafee | Humphrey | Roth |
| Chiles | Inouye | Rudman |
| Cochran | Johnston | Sanford |
| Cohen | Kassebaum | Sarbanes |
| Conrad | Kasten | Sasser |
| Cranston | Kennedy | Shelby |
| D'Amato | Kerry | Simon |
| Danforth | Lautenberg | Simpson |
| Daschle | Leahy | Specter |
| DeConcini | Levin | Stafford |
| Dixon | Lugar | Stennis |
| Dodd | Matsunaga | Stevens |
| Dole | McCain | Thurmond |
| Domenici | McClure | Trible |
| Durenberger | McConnell | Warner |
| Evans | Melcher | Weicker |
| Exon | Metzenbaum | Wilson |
| Ford | Mikulski | Wirth |
| Fowler | Mitchell | Zorinsky |

NAYS—6

| | | |
|---|---|---|
| Armstrong | Helms | Symms |
| Gramm | Nickles | Wallop |

NOT VOTING—1

Bond

So the bill (H.R. 1) was passed.

Mr. MITCHELL. Mr. President, I move to reconsider the vote by which the bill was passed.

Mr. BURDICK. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. FLORIO. Mr. Speaker, I rise in support of efforts to override the Presidential veto of H.R. 1, the Clean Water Act reauthorization, and improve the water quality of our Nation's rivers, streams, and lakes. For the second time in a matter of weeks, Congress again has the opportunity to reaffirm the message that was sent to the President on two occasions. The health of our citizens and our natural resources and the future of our Nation's development will be severely threatened if we do not take steps to clean up our Nation's water supplies.

The lack of a clean water reauthorization endangers not only the economic health of our Nation but also the sanctity of our natural resources. H.R. 1 provides our municipalities with an environmentally responsive and fiscally responsible combination of grants and loans that would allow them to comply with the law and construct sewage treatment facilities. It provides our municipalities with the means to meet the mandate and ensure that our communities can continue to develop.

Without this vital combination of $18 billion in grants and loans, our communities will find their economic growth stunted. Without the mandated improvements in our sewer systems, economic development and expansion, with the creation of new jobs, would be halted. The $99 million per year in grants and loans that is slated for my own State of New Jersey through 1992 would guarantee that the sewage systems will be able to sustain higher development without jeopardizing the quality of our environment. Without this money, each of my constituents could be billed $1 for every $1 million lost in Federal funds because these improvements need to be made.

Mr. Speaker, when the President vetoed this legislation last week, he accused the bill of busting the budget. I would like to direct the attention of my colleagues to the fact that H.R. 1 takes into consideration the fiscal constraint we are facing and phases out the grant program and replaces it with a revolving loan fund. However, all this would be accomplished in such a way as to not interrupt this necessary program.

This legislation provides our Nation with not only the funds to improve our water quality but also with the guidance to decrease pollution on our shores, in our rivers and streams and lakes. In New Jersey, where tourism is one of the key industries, there have been many occasions when our beaches had to close during the summer because of the dangerous and often toxic pollution washing up on the shore. This legislation would alleviate the pollution by prohibiting ocean dumping 12 miles off the New York-New Jersey coast.

In addition, H.R. 1 not only restricts nonpoint pollution but also creates a clean lakes program that will clean up such environmental hazards as Alcyon Lake, next to Lipari landfill, the No. 1 site on the Superfund national priority list in Pitman, NJ. I know how strongly the residents of Pitman feel about being able to once again fish and swim in this lake and I know that this is a feeling shared by many communities across the Nation.

In sum, Mr. Speaker, enactment of the Clean Water Act reauthorization is something we, as a Congress, owe not only to our constituents but also to future generations. We owe it to our children and our grandchildren to ensure that the legacy we leave them is one that will include our best efforts to preserve our natural resources and prevent future degradation of our environment. I urge my colleagues to join in maintaining our commitment to a clean and safe environment and enacting H.R. 1.

□ 1335

Mr. HAMMERSCHMIDT. Mr. Speaker, I do not have any further requests for time, but before I yield back the balance of my time, I yield myself such time as I may consume so that I may say this:

I want to express my appreciation for the leadership given on this legislation for the past 6 years, and even before that, by the chairman of the subcommittee, the gentleman from New Jersey, Mr. BOB ROE, and his counterpart, the gentleman from Minnesota, Mr. ARLAN STANGELAND. I served at one time with the gentleman from New Jersey as ranking member on the Water Resources Subcommittee, and I know the prodigious work he did.

I also wish to thank and congratulate the gentleman from New York [Mr. NOWAK,] who will be assuming the responsibilities as chairman of the subcommittee.

Also, Mr. Speaker, certainly I wish to express my appreciation to the chairman of the full committee, the gentleman from New Jersey, Mr. JIM HOWARD, for his leadership and his cooperation, and I also express my appreciation to the very professional committee staffs. Their help and their cooperation have brought us to this point.

Mr. HOWARD. Mr. Speaker, before I yield back the balance of my time, I yield myself such time as I may consume.

Mr. Speaker, I wish to thank my colleagues, all the members of the Committee on Public Works and Transportation, as well as our counterparts over in the other body.

I especially thank the gentleman from New Jersey [Mr. ROE] and our new subcommittee chairman of the Subcommittee on Water Resources, the gentleman from New York [Mr. NOWAK]. I appreciate the efforts of our ranking minority member, the gentleman from Minnesota [Mr. STANGELAND], and I thank all the Members for the work they have done on this vitally important issue.

In just a matter of weeks this marks really our third time around on this vital legislation. We were victorious in the Congress the first two times. Usually if you win the third time, you get to retire the trophy.

We are not looking for any trophies here, Mr. Speaker. What we are looking for is a mandate by this Congress for clean water for our children and our grandchildren. We can do that by voting yes on this vote to override the President's veto.

Mr. Speaker, I yield back the balance of my time, and I move the previous question.

The previous question was ordered.

The SPEAKER pro tempore (Mr. KILDEE). The question is, Will the House, on reconsideration, pass the bill, the objections of the President to the contrary notwithstanding?

Under the Constitution, this vote must be determined by the yeas and nays.

The vote was taken by electronic device, and there were—yeas 401, nays 26, not voting 6, as follows:

[Roll No. 14]

YEAS—401

| | | |
|---|---|---|
| Ackerman | Conyers | Gingrich |
| Akaka | Cooper | Glickman |
| Alexander | Coughlin | Gonzalez |
| Anderson | Courter | Goodling |
| Andrews | Coyne | Gordon |
| Anthony | Craig | Gradison |
| Applegate | Crockett | Grandy |
| Archer | Daniel | Grant |
| Armey | Darden | Gray (IL) |
| Aspin | Daub | Gray (PA) |
| Atkins | Davis (IL) | Green |
| AuCoin | Davis (MI) | Gregg |
| Baker | de la Garza | Guarini |
| Ballenger | DeFazio | Gunderson |
| Barnard | Dellums | Hall (OH) |
| Bateman | Derrick | Hall (TX) |
| Bates | DeWine | Hamilton |
| Bellenson | Dicks | Hammerschmidt |
| Bennett | Dingell | Hansen |
| Bentley | DioGuardi | Harris |
| Bereuter | Dixon | Hastert |
| Berman | Donnelly | Hatcher |
| Bevill | Dorgan (ND) | Hawkins |
| Biaggi | Dowdy | Hayes (IL) |
| Bilbray | Downey | Hayes (LA) |
| Bilirakis | Dreier | Hefley |
| Bliley | Duncan | Hefner |
| Boehlert | Durbin | Henry |
| Boggs | Dwyer | Hertel |
| Boland | Dymally | Hiler |
| Boner (TN) | Dyson | Hochbrueckner |
| Bonior (MI) | Early | Holloway |
| Bonker | Eckart | Hopkins |
| Borski | Edwards (CA) | Horton |
| Bosco | Edwards (OK) | Houghton |
| Boucher | Emerson | Howard |
| Boulter | English | Hoyer |
| Boxer | Erdreich | Hubbard |
| Brennan | Espy | Huckaby |
| Brooks | Evans | Hughes |
| Brown (CA) | Fascell | Hunter |
| Brown (CO) | Fawell | Hutto |
| Bruce | Fazio | Ireland |
| Bryant | Feighan | Jacobs |
| Bunning | Fields | Jeffords |
| Bustamante | Fish | Jenkins |
| Byron | Flake | Johnson (CT) |
| Callahan | Flippo | Johnson (SD) |
| Campbell | Florio | Jones (NC) |
| Cardin | Foglietta | Jones (TN) |
| Carper | Foley | Jontz |
| Carr | Ford (MI) | Kanjorski |
| Chandler | Ford (TN) | Kaptur |
| Chapman | Frank | Kasich |
| Chappell | Frenzel | Kastenmeier |
| Clarke | Frost | Kennedy |
| Clay | Gallegly | Kennelly |
| Coats | Gallo | Kildee |
| Coble | Garcia | Klecska |
| Coelho | Gaydos | Kolbe |
| Coleman (MO) | Gejdenson | Kolter |
| Coleman (TX) | Gekas | Konnyu |
| Collins | Gibbons | Kostmayer |
| Conte | Gilman | Kyl |

LaFalce
Lagomarsino
Lancaster
Lantos
Leach (IA)
Leath (TX)
Lehman (CA)
Lehman (FL)
Leland
Lent
Levin (MI)
Levine (CA)
Lewis (FL)
Lewis (GA)
Lightfoot
Lipinski
Livingston
Lloyd
Lowery (CA)
Lowry (WA)
Lujan
Luken, Thomas
Mack
MacKay
Manton
Markey
Martin (IL)
Martin (NY)
Martinez
Matsui
Mavroules
Mazzoli
McCandless
McCloskey
McCollum
McCurdy
McEwen
McGrath
McHugh
McKinney
McMillan (NC)
McMillen (MD)
Meyers
Mfume
Mica
Miller (CA)
Miller (WA)
Mineta
Moakley
Molinari
Mollohan
Montgomery
Moody
Moorhead
Morella
Morrison (CT)
Morrison (WA)
Mrazek
Murphy
Murtha
Myers
Nagle
Natcher
Neal
Nelson
Nichols
Nielson
Nowak
Oakar
Oberstar
Obey
Olin
Ortiz
Owens (NY)
Owens (UT)
Oxley
Packard
Panetta
Parris
Pashayan
Patterson
Pease
Penny
Pepper
Perkins
Petri
Pickett
Pickle
Porter
Price (IL)
Price (NC)
Purseil
Quillen
Rahall
Rangel
Ravenel
Ray
Regula
Rhodes
Richardson
Ridge
Rinaldo
Ritter
Roberts
Robinson
Rodino
Roe
Roemer
Rogers
Rose
Rostenkowski
Roth
Roukema
Rowland (CT)
Rowland (GA)
Roybal
Russo
Sabo
Saiki
Savage
Sawyer
Saxton
Schaefer
Scheuer
Schneider
Schroeder
Schuette
Schulze
Schumer
Sensenbrenner
Sharp
Shaw
Shumway
Shuster
Sikorski
Sisisky
Skaggs
Skeen
Skelton
Slattery
Slaughter (NY)
Slaughter (VA)
Smith (FL)
Smith (IA)
Smith (NE)
Smith (NJ)
Smith (TX)
Smith, Denny (OR)
Smith, Robert (NH)
Smith, Robert (OR)
Snowe
Solarz
Solomon
Spence
Spratt
St Germain
Staggers
Stallings
Stangeland
Stark
Stenholm
Stokes
Stratton
Studds
Sundquist
Sweeney
Swift
Swindall
Synar
Tallon
Tauke
Tauzin
Taylor
Thomas (CA)
Thomas (GA)
Torres
Torricelli
Towns
Traficant
Traxler
Udall
Upton
Valentine
Vento
Visclosky
Volkmer
Vucanovich
Walgren
Walker
Watkins
Waxman
Weber
Weiss
Weldon
Wheat
Whittaker
Whitten
Williams
Wilson
Wise
Wolf
Wolpe
Wortley
Wyden
Wylie
Yates
Yatron
Young (AK)
Young (FL)

NAYS—26

Badham
Bartlett
Barton
Broomfield
Buechner
Burton
Cheney
Combest
Crane
Dannemeyer
DeLay
Dornan (CA)
Herger
Hyde
Inhofe
Kemp
Latta
Lewis (CA)
Lott
Lukens, Donald
Lungren
Madigan
Marlenee
Michel
Stump
Vander Jagt

NOT VOTING—6

Annunzio
Clinger
Dickinson
Gephardt
McDade
Miller (OH)

□ 1355

Mr. LIPINSKI and Mr. HEFLEY changed their votes from "nay" to "yea."

So, two-thirds having voted in favor thereof, the bill was passed, the objections of the President to the contrary notwithstanding.

The result of the vote was announced as above recorded.

The SPEAKER. The Clerk will notify the Senate of the action of the House.

## WATER QUALITY ACT OF 1987—VETO

The PRESIDING OFFICER. Under the previous order, the hour of 2 p.m. having arrived, the Senate will now proceed to the consideration of the President's veto message on H.R. 1, which the clerk will report.

The bill clerk read as follows:

Veto message on H.R. 1, an Act to amend the Federal Water Pollution Control Act and to provide for renewal of the quality of the Nation's waters, and for other purposes.

The message from the President is as follows:

*To the House of Representatives:*

I am returning herewith without my approval H.R. 1, the "Water Quality Act of 1987." Because all regulatory, research, enforcement, and permit issuance activities are continued under permanent law and current appropriations—including grants to finance the construction of sewage treatment plants—I emphasize that my veto will have no impact whatsoever on the immediate status of any water quality programs.

The cleanup of our Nation's rivers, lakes, and estuaries is, and has been for the past 15 years, a national priority of the highest order. This Administration remains committed to the objectives of the Clean Water Act and to continuing the outstanding progress we have made in reducing water pollution. But the issue facing me today does not concern the ensuring of clean water for future generations. The real issue is the Federal deficit—and the pork-barrel and spending boondoggles that increase it.

The Clean Water Act construction grant program, which this legislation funds, is a classic example of how well-intentioned, short-term programs balloon into open-ended, long-term commitments costing billions of dollars more than anticipated or needed. Since 1972, the Federal government has helped fund the construction of local sewage treatment facilities. This is a matter that historically and properly was the responsibility of State and local governments. The Federal government's first spending in this area was intended to be a short-term effort to assist in financing the backlog of facilities needed at the time to meet the original Clean Water Act requirements. When the program started, the cost of that commitment to the Federal taxpayer was estimated at $18 billion. Yet to date, $47 billion has been appropriated. H.R. 1 proposes to put still another $18 billion of taxpayers' money into this program. Despite all this money, only 67 percent of all municipalities have actually completed the construction needed to comply with the Clean Water Act pollution limits. On the other hand, non-municipal treatment systems, which have received no Federal funding, have completed 94 percent of the construction needed for compliance with Federal pollution standards. I want a bill that spends only what we need to spend and no more—not a blank check. For these reasons I must disapprove H.R. 1, a bill virtually identical to S. 1128, which I disapproved last November.

Money is not the only problem with this legislation. In my November 6th memorandum of disapproval, I noted that S. 1128 was unacceptable not only because it provided excessive funding for the sewage treatment grant program, but also because it reversed important reforms enacted in 1981, for example, increasing the Federal share of costs on some projects that municipalities were going to build anyway. Furthermore, both S. 1128 and this bill would also establish a federally controlled and directed program to control what is called "non-point" source pollution. This new program threatens to become the ultimate whip hand for Federal regulators. For example, in participating States, if farmers have more run-off from their land than the Environmental Protection Agency decides is right, that Agency will be able to intrude into decisions such as how and where the farmers must plow their fields, what fertilizers they must use, and what kind of cover crops they must plant. To take another example, the Agency will be able to become a major force in local zoning decisions that will determine whether families can do such basic things as build a new home. That is too much power for anyone to have, least of all the Federal Government.

As part of my FY 1988 Budget, I proposed legislation that would avoid all these problems, while continuing our commitment to clean water. It would provide $12 billion for the sewage treatment program, halfway between the $6 billion I had proposed in 1985 and the $18 billion the Congress proposes. Senator DOLE introduced this proposal as a substitute for H.R. 1.

Specifically, the Dole substitute that was voted on by the Senate was identical to all provisions of H.R. 1 for programs other than sewage treatment, with one important exception—its program for non-point source pollution was not an open end for Federal regulators. It kept Federal environmental regulators off of our farms, off of our municipal zoning boards, and out of the lives of ordinary citizens. The Dole substitute would have given States complete discretion over participation in the non-point source pollution program and complete discretion over how they used Federal funds in the program. Let me repeat—controlling non-point source pollution has the potential to touch, in the most intimate ways, practically all of us as citizens, whether farmers, business people, or homeowners. I do not believe State programs should be subject to Federal control.

The $12 billion requested in the Dole substitute would have financed the "Federal share" of all of the treatment plants that have already been started. It would also have provided the "Federal share" of financing for all facilities needed to meet the July 1, 1988, compliance requirements in the Clean Water Act. It was as much money as we needed to get the job done—period.

The Dole substitute offered the Congress a genuine compromise that met all of the national objectives and goals. Nevertheless, the Congress chose to ignore that proposal, forgoing even the normal hearing process, and repassed last year's legislation with virtually no changes. The House Rules Committee even prevented consideration of this compromise by the full House. They sought to challenge me. But in so doing they are sending a message to the American people and the world that those who want to raise taxes and take the lid off spending are back again. This is perilous.

H.R. 1 gave the Congress the opportunity to demonstrate whether or not it is serious about getting Federal spending under control. The Congress should fulfill its responsibility to the American people and support me on these important fiscal issues. Together we can cut the deficit and reduce spending. But by passing such measures as H.R. 1, the Congress divides our interests and threatens our future.

RONALD REAGAN.

THE WHITE HOUSE, *January 30, 1987.*

The PRESIDING OFFICER (Mr. DASCHLE). Time for debate is limited to 1 hour, to be equally divided between the Senator from North Dakota and the Senator from Vermont. The vote thereon will occur at 3 p.m.

The PRESIDING OFFICER (Mr. ADAMS). All time is yielded back. The question is, shall the bill pass, the objections of the President of the United States to the contrary notwithstanding? The yeas and nays are required. The clerk will call the roll.

The legislative clerk called the roll.

The PRESIDING OFFICER. Are there any other Senators in the Chamber desiring to vote?

The yeas and nays resulted: Yeas 86, nays 14, as follows:

[Rollcall Vote No. 19 Leg.]

YEAS—86

| | | |
|---|---|---|
| Adams | Glenn | Nunn |
| Baucus | Gore | Packwood |
| Bentsen | Graham | Pell |
| Biden | Grassley | Pressler |
| Bingaman | Harkin | Proxmire |
| Bond | Hatch | Pryor |
| Boren | Hatfield | Quayle |
| Boschwitz | Hecht | Reid |
| Bradley | Heflin | Riegle |
| Breaux | Heinz | Rockefeller |
| Bumpers | Hollings | Roth |
| Burdick | Humphrey | Rudman |
| Byrd | Inouye | Sanford |
| Chafee | Johnston | Sarbanes |
| Chiles | Kasten | Sasser |
| Cohen | Kennedy | Shelby |
| Conrad | Kerry | Simon |
| Cranston | Lautenberg | Simpson |
| D'Amato | Leahy | Specter |
| Danforth | Levin | Stafford |
| Daschle | McCain | Stennis |
| DeConcini | McConnell | Stevens |
| Dixon | Matsunaga | Trible |
| Dodd | Melcher | Warner |
| Domenici | Metzenbaum | Weicker |
| Durenberger | Mikulski | Wilson |
| Evans | Mitchell | Wirth |
| Ford | Moynihan | Zorinsky |
| Fowler | Murkowski | |

NAYS—14

| | | |
|---|---|---|
| Armstrong | Gramm | Nickles |
| Cochran | Helms | Symms |
| Dole | Kassebaum | Thurmond |
| Exon | Lugar | Wallop |
| Garn | McClure | |

The PRESIDING OFFICER. On this vote, the yeas are 86 and the nays are 14. Two-thirds of the Senators present and voting having voted in the affirmative, the bill, on reconsideration, is passed, the objections of the President of the United States to the contrary notwithstanding.

# APPENDIX B

## Regional Contact Questionnaire

This appendix provides the questionnaire used to survey EPA regional permitting authorities on the types or categories of discharges that could be considered *de minimis*, as well as to recommend regulatory options and associated procedural implications, with respect to the classification of *de minimis* discharges. A similar questionnaire was developed for the State permitting agencies.

## DE MINIMIS REGIONAL CONTACT QUESTIONNAIRE #1

REGION: _____

CONTACT: _____

AGENCY: _____

ADDRESS: _____

_____

_____

PHONE #: _____

ADDITIONAL INFORMATION: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

1. Discuss the region's initial responses regarding categories of De Minimis, if applicable.

   a. Rationale for Each Category?
   b. What Type of Effluent?
   c. Any Other Suggestions for De Minimis?

2. Discuss other potential candidates for De Minimis.

a. Candidates from Other Regions.

a-1. Fish Hatcheries - Trout Farms: _____

a-2. Oil Storage Facilities - Oil/Waste Separators: _____

a-3. Seafood Packaging/Processing: _____

a-4. Water Filtration Plants: _____

a-5. Mine Dewatering: _____

a-6. Pit Dewatering: _____

a-7. Sand Dredging: _____

a-8. Quarries: _____

a-9. Swimming Pool Filter Backwash: _____

a-10. Aquifer Restoration: _____

a-11. Car Washes (regulated): _____

a-12. Brine Discharges (stripper wells): _____

a-13. Steam Condensate: _____

a-14. Heat Pumps: _____

a-15. Hydrostatic Testing: _____

a-16. Wholesale Trade, Retail Trade, Finance, and Real Estate: _____

a-17. Services: _____

3. Discuss special cases of De Minimis and how classification can be achieved:

<u>POTWs & Other Sewage Treatment Facilities</u> (minor municipals)

a. Pretreatment.
b. Plant Flow.
c. Dilution Factors.
d. Population Served.
e. Seasonal.

3. Discuss special cases of De Minimis and how classification can be achieved:

<u>Noncontact Cooling Water</u>

a. Plant Flow.
b. Heat.
c. Stream Flow or Dilution Factor.
d. For Specific Operations or Industries (i.e., no toxics).

3. Discuss special cases of De Minimis and how classification can be achieved:

Individual Homes (define)

a. Type of Treatment.
b. Septic Systems.

4. Discuss regulatory options.

a. Exclusion from NPDES Permit Requirements: _____

4. Discuss regulatory options.

b. Model Permit (rubber stamp): _____

4. Discuss regulatory options.

c. General Permit: _____

4. Discuss regulatory options.

d. Ten-Year Permits (as opposed to five-year): _____

4. Discuss regulatory options.

e. Over-the-Counter Processing: _____

5. Request any information helpful in evaluating cost savings attributed to regulatory options: _____

6. Miscellaneous: _____

7. State Contacts: _____

# APPENDIX C

## *De Minimis* Discharge Survey Results

Potential *De Minimis* Discharges

| | |
|---|---|
| EPA Region Responses | C1-C4 |
| EPA Responses | C5-C8 |

This appendix provides the results of the Study's survey on the types or categories of discharges that could be considered *de minimis*. Results were compiled for the ten EPA regional permitting authorities and nine State permitting agencies recommended by the regional offices.

## EPA REGION RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES

| | Region I | Region II | Region III | Region IV | Region V |
|---|---|---|---|---|---|
| **Aquifer Restoration** | No comment. | No comment. | NO - Can be dealing with highly toxic chemicals (Superfund). | OK - Originally suggested from NC.* | NO - You are pumping contamination, should not eliminate public notice. |
| **Brine Discharger (Stripper Wells)** | No comment. | ? - Preliminary results of a study indicate potential impacts in NY. | ? - A NEIC report indicates some situations where impacts can be minimal.* | NO - A lot of problems, however, may fit under a general permit. | NO - Strong argument for zero discharge in Michigan. |
| **Car Washes** | No comment. | NO - Hesitant because of phosphorus, salt, and oil and grease. | No comment. | NO - Should be kept under a regular permit - dirt detergents, oil. | No comment. |
| **Fish Hatcheries** | OK - Originally suggested.* | ? - Can have severe nutrient problems. | OK - Originally suggested by region.* | ? - Depends on type of operation, fish, and size (*-NC trout farms only). | ? - Chemicals used to control fish disease. However, are generally minor permits. |
| **Heat Pumps** | No comment. | OK - If heat is considered in relation to flow. | OK - VA may have permits for these dischargers. | No comment. | OK - MN is working on a general permit for these*. |
| **Homes** | OK - Many coastal or island discharges only 2-300 GPD.* | ? - Septic systems should be a Department of Health concern. | OK - A high number in PA (septic discharges). | ? - Are county regulated | No comment. |
| **Hydrostatic Testing** | No comment. | OK - If strictly hydro testing. Beware of acid and chemicals being rinsed from new pipe. | No comment. | No comment. | No comment. |
| **Mine Dewatering** | No comment. | No comment. | NO - Mines, especially coal mines, are a serious problem in Region III. | NO - Varies too much, coal is a problem (*-NC). | NO - Location of discharges can move. |
| **Noncontact Cooling** | OK - Must have criteria based on heat.* | OK - Needs criteria based on fraction of flow or temperature rise.* | OK - Logical choice; some situations where it could be covered. | ? - Can't be too general, should not exempt power plants. Temperature should be a criteria (*-NC) | OK - WI has a general permit.* |

## EPA REGION RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES (continued)

| | Region VI | Region VII | Region VIII | Region IX | Region X | Totals |
|---|---|---|---|---|---|---|
| **Aquifer Restoration** | ? - Variable depending on contamination. | NO - If pumping contamination | No comment. | ? - Maybe, if contamination meets drinking water standards, or for short-term pumping tests | OK - Not addressed in Region. | 2 OK<br>2 ?<br>3 NO<br>3 No comment |
| **Brine Discharger (Stripper Wells)** | OK - Currently ignored, left up to individual. | No comment. | ? - From water softening cylinders could be a problem. | ? - Possibly to marine environments, but not freshwater | No comment | 2 OK<br>3 ?<br>2-NO<br>3 No comment |
| **Car Washes** | ? - Fairly insignificant, but very questionable.* | OK - Only a few directs within region. | NO - Can be a problem, degreaser, hot water, etc. | No comment | No comment | 1 OK<br>1-?<br>3-NO<br>5-No comment |
| **Fish Hatcheries** | OK - For special cases, trout and shrimp farms. | ? - Only a handful within the region, may be a problem. | ? - Size must be a consideration. | NO - Can be quite large and cause problems, are easy permits to write and keep. | OK - For small farm pond types, not large or raceway facilities | 4-OK<br>5 ?<br>1 NO |
| **Heat Pumps** | OK | OK | No comment. | OK | OK | 7 OK<br>3 No comment |
| **Homes** | OK - See small sewage treatment facilities | OK - Individual septic systems | OK - Generally a low permitting priority, but may be high-strength effluent | ? - Public health concerns. | OK - See small treatment plants. | 6-OK<br>3-?<br>1-No comment |
| **Hydrostatic Testing** | OK - Constantly bombarded with applications, hard to deal with. Good candidate. | OK - One state is issuing a general permit for these dischargers, new VS existing pipelines is a consideration. | OK - Generally minor, however, rate of discharge, water source, and type of line should be considered. | OK - If additives are not used. | OK | 6-OK<br>4-No comment |
| **Mine Dewatering** | NO - Coal operations can be significant | No comment. | No comment | NO | NO Can release large amounts of pollutants to pristine environments | 6 NO<br>4 No comment |
| **Noncontact Cooling** | OK | OK - Biocide should be a consideration. | OK | OK Consider biocides, flow rate, and temperature | OK Many minor facilities | 4 OK<br>1 |

KEY:
OK - generally in agreement with the category
NO generally in opposition to the category
maybe, undecided

* Originally suggested by Region
NC Originally suggested by North Carolina

## EPA REGION RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES

| | Region I | Region II | Region III | Region IV | Region V |
|---|---|---|---|---|---|
| **Oil Storage Facilities Oil-Waste Separators** | No comment. | ? - Perhaps, may fit under a general permit but would not exclude from NPDES. | ? - May be a minor category, however, spills are a serious concern. | OK - Many are covered under general permits (*-NC). | OK - But do have potential for spills. |
| **Pit Dewatering** | OK - Construction dewatering.* | No comment. | No comment. | OK - For certain types. | No comment. |
| **Quarries** | No comment. | No comment. | No comment. | No comment. | No comment |
| **Sand Dredging** | No comment. | No comment. | ? - Have not seen many problems within the region. | OK - No long-standing harm, are mobile operations (*-NC). | No comment |
| **Seafood Packaging & Processing** | No comment. | NO - Tuna packers have been shown to be a real problem (BOD). | NO - Problems have occurred within Region III. | NO - Especially for processing operations. Small packing or dock operations may be OK (*-NC packing). | No comment. |
| **Small Sewage Treatment Facilities** | OK - Perhaps less than 0.1 MGD.* | ? - Small facilities tend to be poorly operated and maintained. | OK - VA and MD are working on general permits for these types.* | ? - Health department could better handle these dischargers; some are currently neglected. | No comment |
| **Steam Condensate** | No comment. | OK - If heat is considered in relation to flow. | No comment. | OK | OK - A lot of this type within region, volume is small.* |
| **Swimming Pools** | OK | OK - Generally, only a few concerns (chlorine). | OK - Minimal type problem. | OK - Are currently being overlooked, exemption would be a good option. | OK - Good candidate, generally small |
| **Water Filtration Plants** | OK - * | OK - But should not be deregulated. | OK - For small dischargers into large streams; the converse of this may be a problem. | OK - However, special cases should be looked at (i.e., aluminum sludge, size, etc.) | ? - There are a lot that could fit in the region, but ensure they are De Minimis |

EPA REGION RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES (continued)

| | Region VI | Region VII | Region VIII | Region IX | Region X | Totals |
|---|---|---|---|---|---|---|
| **Oil Storage Facilities Oil-Waste Separators** | OK | OK - Probably fits category of de minimis | OK - If housekeeping is good, no worse than parking lots | ? - Storage facilities only, waste-separators can have toxics | OK If only runoff | 6 OK<br>3 ?<br>1 No comment |
| **Pit Dewatering** | No comment | No comment. | No comment. | NO | No comment | 2 OK<br>1 NO<br>7 No comment |
| **Quarries** | No comment | OK - Originally suggested * | No comment. | ? Maybe nonmetal bearing pits. | No comment | 1 OK<br>8 NO<br>1 ?<br>8 No comment |
| **Sand Dredging** | OK | ? - A few site problems. | No comment. | NO - Some cause significant stream problems | NO - Placer mining needs 5 year permit. | 2 OK<br>2 NO<br>2 ?<br>4 No comment |
| **Seafood Packaging & Processing** | NO - In some cases, significant BOD problems. | No comment. | No comment. | NO Canneries can cause severe problems. | ? - Perhaps small packaging facilities (rinse water only) | 1 ?<br>4 NO<br>5 No comment |
| **Small Sewage Treatment Facilities** | OK - General permit for several thousand dischargers in LA. Relative size of stream should be considered. | NO - MT takes a lot of time to deal with these, located on high-quality small streams. | No comment. | NO - Small systems have worst operation and maintenance; potential for health impacts. | OK Many small seasonal camps, etc., in this region. A waste of time to monitor. * | 4 OK<br>2 ?<br>2 NO<br>2 No comment |
| **Steam Condensate** | OK | No comment | No comment. | ? | OK | 5 OK<br>1 ?<br>4 No comment |
| **Swimming Pools** | OK - Good idea * | OK | OK - Generally not a problem. | OK Good candidate | OK | 10 OK |
| **Water Filtration Plants** | OK - Good candidate | OK - Generally not a problem * | ? - Can be a problem on small streams, clarifier underflow is allowed to be discharged on a regular basis | OK Good candidate | OK Part of backlog, 10 year option would be suitable | 8 OK<br>2 ? |

KEY:
OK - generally in agreement with the category
NO - generally in opposition to the category
? - maybe, undecided
No comment - not discussed or no feeling toward category

* Originally suggested by Region
* NC Originally suggested by North Carolina

STATE RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES

| | Maine | New Jersey | Pennsylvania | Kentucky | Wisconsin |
|---|---|---|---|---|---|
| **Aquifer Restoration** | OK - Is in need of some kind of regulation, should meet applicable water standards. | NO - Can be a problem (well drilling chemicals). | NO - Contaminated water should not be considered de minimis. | No comment. | NO - Toxics. |
| **Brine Discharges (Stripper Wells)** | No comment. | No comment. | NO - A major problem, PA has a separate bureau to handle these dischargers. | NO - All are permitted in KY with a new chloride standard. | NO - Industrial brine dischargers are permitted in WI |
| **Car Washes** | NO - Soaps and nutrients. | NO - NJ has tried to convert most to indirect or zero dischargers. | NO - PA tries to discharge these subsurface in non-sewered area. | NO - Are steering toward zero discharge. | NO - Are encouraged to be indirect dischargers. |
| **Fish Hatcheries** | NO - Can be a significant nutrient problem, may fit a general permit scheme. | NO - Significant contributor of BOD, bacteria, and solids. | NO - Are a significant problem on high-quality streams. | NO - Have denied permits. | NO - Ammonia can be a problem. |
| **Heat Pumps** | OK - May be possible to exempt this category. | OK - But there are not many in NJ. | OK - Not a problem. | OK | OK - See Noncontact Cooling. |
| **Homes** | NO - Coastal package plant discharges have caused shellfish harvest problems due to bacteria. | NO - See Sewage Treatment Plants. | ? - Significant from a public health standpoint (raw sewage). | OK - If less than 2,500 gal/d, a general permit may fit. | No comment. |
| **Hydrostatic Testing** | OK - Exemption, over-the-counter, or a rule may fit this category. | No comment. | NO - Can cause substantial environmental problems. | NO - Some PCBs have been detected, currently involved in litigations. | OK - Are considered de minimis by state. |
| **Mine Dewatering** | OK - Over-the-counter processing or general permit. | ? - NJ does not have a coal problem, localized nuisances have occurred. | NO - Acid mine drainage is a major problem in PA. | NO - Has been a problem in KY; 3,100 dischargers are under a general permit. | NO - Should be addressed individually. |
| **Noncontact Cooling** | OK - Covered under a general permit in Region I, site specifics must be addressed. | OK - Has issued a general permit for small discharges. | OK - Not a problem. | NO - Are currently permitted, new toxics standards must be considered | OK - Under a general permit. |

STATE RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES (continued)

| | Texas | Missouri | California | Washington | Totals |
|---|---|---|---|---|---|
| **Aquifer Restoration** | NO - Are currently regulated. | ? - Dependent upon contaminant. | OK - Generally no problems. | NO | 2 - OK<br>1 - ?<br>5 - NO<br>1 - No comment |
| **Brine Discharges (Stripper Wells)** | NO - Regulated by railroad commission. | ? - MO returns brine to aquifer. | NO - Large number of abatement orders currently. | No comment. | 1 - ?<br>5 - NO<br>3 - No comment. |
| **Car Washes** | NO | NO - Solids and soaps. | OK - No problems. | NO - Soaps and detergents. | 1 - OK<br>8 - NO |
| **Fish Hatcheries** | OK - State does not issue permits for these. | NO - When cleaning operations are included in discharge. | ? - Discharges to small streams can cause problems. | NO - Is of current public interest; have seen some problems. | 1 - OK<br>1 - ?<br>7 - NO |
| **Heat Pumps** | NO - See Steam Condensate. | OK - For households. | OK | OK - If not large, commercial units. | 8 - OK<br>1 - NO |
| **Homes** | NO - Health concerns. | OK - Not regulated, therefore, are potentially de minimis. | No comment. | NO - See Sewage Treatment Facilities. | 2 - OK<br>1 - ?<br>4 - NO<br>2 - No comment |
| **Hydrostatic Testing** | OK - Currently regulated by letters, working on a rule or general permit. | OK | OK | ? - If short-term could be regulated by some other means than NPDES. | 5 - OK<br>1 - ?<br>2 - NO<br>1 - No comment |
| **Mine Dewatering** | NO - Lignite mines are covered by state-wide rules. | NO - Coal and lead have been a problem. | NO - There have been problems in these areas. | No comment. | 1 - OK<br>1 - ?<br>6 - NO<br>1 - No comment |
| **Noncontact Cooling** | ? - Generally permitted. | OK - For small dischargers. | OK | OK - If low flow and temperature | 7 - OK<br>1 - ?<br>1 - NO |

STATE RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES (continued)

| | Maine | New Jersey | Pennsylvania | Kentucky | Wisconsin |
|---|---|---|---|---|---|
| **Oil Storage Facilities Oil-Waste Separators** | ? - Separators are currently under a general permit, however, there is concern whether this regulation is adequate. PAH's have been detected. | NO - Are currently not being adequately regulated. | OK - Probably fits into a de minimis category. | OK - A general permit may fit here. | OK - Covered under a general permit. |
| **Pit Dewatering** | OK - Over-the-counter or general permit. | No comment. | NO | OK - General permit. | OK - Covered under a general permit. |
| **Quarries** | OK - Over-the-counter or general permit. | NO - Can be a problem. | OK - Does not appear to be a significant problem. | OK - General permit. | OK - Covered under a general permit. |
| **Sand Dredging** | OK - Over-the-counter or general permit. | No comment. | OK - Does not appear to be a significant problem. | OK - General permit. | OK - Covered under a general permit. |
| **Seafood Packaging & Processing** | NO - Receiving water specific. May fit into a general permit scheme. | NO - Even minor facilities can cause major problems. | ? - Not familiar with these types of facilities. | No comment. | No comment |
| **Small Sewage Treatment Facilities** | NO - See Homes. | NO - NJ would not support de minimis classification of these plants. | OK - Not a real problem. | NO - KY has had a significant problem with package plants. | OK - May be covered under a general permit. |
| **Steam Condensate** | OK | OK - If discharge is is uncontaminated. | No comment. | OK | OK - See Noncontact Cooling. |
| **Swimming Pools** | OK - The use of a rule may fit this category. | ? - Category where there is a potential problem, but would like to ignore. | OK - Not a problem. | OK | OK |
| **Water Filtration Plants** | OK - This category needs to be addressed somehow; perhaps a general permit. | ? - In NJ, water plants draw large percentages from streams and want to put back the solids | OK - Probably a de minimis category. | NO - Just issued a lot of permits to get them in line | OK - Covered under a general permit |

STATE RESPONSES TO POTENTIAL DE MINIMIS DISCHARGES (continued)

| | Texas | Missouri | California | Washington | Totals |
|---|---|---|---|---|---|
| **Oil Storage Facilities Oil-Waste Separators** | OK - For small tank farms or bulk stations. | OK - Generally just stormwater. | ? - Series of cleanup and abatement actions on these types in CA. | ? - Facilities down to and including bulk stations and distribution terminals may be significant. | 5 - OK<br>3 - ?<br>1 - NO |
| **Pit Dewatering** | NO - If they discharge, they are permitted. | NO | ? - No operations in CA region. | OK - If the volume is not too high. Currently unregulated; a general permit may fit here. | 4 - OK<br>1 - ?<br>3 - NO<br>1 - No comment |
| **Quarries** | NO - Potential for significant pollution. | OK - Limestone is not a problem. | OK - Generally no problems. | OK - See Pit Dewatering. | 7 - OK<br>2 - NO |
| **Sand Dredging** | ? - Generally zero discharge; a general permit may fit. | ? - Based on nature of water, MO and MS Rivers are OK. Ozark pristine waters - NO. | OK - Generally no problems. | OK - See Pit Dewatering. | 6 - OK<br>2 - ?<br>1 - No comment |
| **Seafood Packaging & Processing** | NO - Are currently regulated. | No comment. | ? - Do not think they are generally a problem. | ? - Only small operations such as oyster shucking are insignificant. | 3 - ?<br>3 - NO<br>3 - No comment. |
| **Small Sewage Treatment Facilities** | NO - Are currently regulated. | ? - Possibly for small dischargers, MO is trying to write a general permit. | ? - A few under enforcement actions. | NO - Generally discourage small sewage discharges. | 1 - OK<br>3 - ?<br>5 - NO |
| **Steam Condensate** | NO - Regulated with other operations in a permit. | OK - For small dischargers. | OK | OK - If small heating steam condensate. | 7 - OK<br>1 - NO<br>1 - No comment |
| **Swimming Pools** | OK - Not regulated in TX. | OK | OK | OK - Generally; a few fish kills have been noted. | 8 - OK<br>1 - ? |
| **Water Filtration Plants** | ? - Most decant and recycle, close to zero discharge. | OK - If discharging to large receiving waters. In MO, only the MO and MS Rivers. | OK | ? - Controversial issue, problems setting limits | 5 - OK<br>3 - ?<br>1 - NO |

# APPENDIX D

## *De Minimis* Discharge Survey Results

Potential Regulatory Options

| | |
|---|---|
| EPA Region Responses | D1-D2 |
| State Responses | D3-D4 |

This appendix provides the results of the Study's survey on the potential regulatory options. Results were compiled for the ten EPA regional permitting authorities and nine State permitting agencies recommended by the regional offices.

## EPA REGION RESPONSES TO POTENTIAL DE MINIMIS REGULATORY OPTIONS

| | Region I | Region II | Region III | Region IV | Region V |
|---|---|---|---|---|---|
| **Model Permit** | NO - Still requires individual notification requirements. | OK - May fit certain situations such as constructon runoff and other high burden temporary operations. | ? - Already being used to some extent. | NO - Is not any different from a standard permit put in a word processor. | NO - States have used this and it is not a great advantage. |
| **General Permit** | OK - Essentially a letter stating that a standard permit is not needed. | OK - Good idea, especially for stripper wells and oil storage facilities. | OK - Good option, is being considered for oil & gas and small sanitary discharges. | OK - Is used in KY for coal mines and private residences. | OK - Except process to get state authority is too time consuming. |
| **Ten-Year Permit** | OK - As long as notification of changes is still mandatory. | OK - If mandatory monitoring and inspections are still required. | OK - May be a viable option in some cases. | NO - If it is not important, it would be better to regulate under a general permit or to exempt from requirements. | OK - Good idea. Should include short application format and simplified procedures. |
| **Over-the-Counter** | ? - No comment. | OK - If it can actually streamline the process. | NO - Does not feel this type of process would be helpful. | NO - Would not have public participation, also similar to general permit in terms of regulations. | ? - No comment. |
| **Exclusion from NPDES** | ? - Perhaps facilities and POTWs with less than 1,000 GPD. | NO - These operations can have effects on small, high quality streams. Also makes permittee aware of environmental concerns. | OK - May be a viable option for certain categories. | ? - If unimportant, it may be an option. See comments on the 10-year permit. | NO - Regulations say that all point sources must be permitted, would not change this. |

KEY: OK - generally in agreement with the option.
NO - generally in opposition with the option.
? - maybe, undecided, or no comment.

EPA REGION RESPONSES TO POTENTIAL DE MINIMIS REGULATORY OPTIONS (continued)

| | Region VI | Region VII | Region VIII | Region IX | Region X | Totals |
|---|---|---|---|---|---|---|
| **Model Permit** | ? - Not familiar with process, but may be appropriate. | ? - No comment. | ? - For guidance only, must modify permits to suit specific needs. | NO - Is in use and does not tend to eliminate processing burden. | OK - Could work for certain categories (placer mines and fish hatcheries). | 2-OK<br>4-?<br>4-NO |
| **General Permit** | OK - The region needs to utilize this more, and interaction with EPA headquarters needs to be streamlined. | OK - States are using this, effective for De Minimis categories. | OK - However, approval and interaction with EPA headquarters needs to be expedited. | OK - But needs to be easier getting through EPA headquarter's review. | OK - But issuance through EPA headquarters needs to be streamlined. | 10-OK |
| **Ten-Year Permit** | OK - Good idea, perhaps even 15 years for reissued permits. | OK - Would delay the reissuance of thousands of minor facilities. | ? - Mixed emotions, maybe OK if the option to reopen is there. | OK - May be useful in some instances. | OK - Many facilities where discharge will not change, and notification is required if changes do occur. | 8-OK<br>1-?<br>1-NO |
| **Over-the-Counter** | NO - Circumventing USEPA regulations and the Clean Water Act, not much better than not addressing discharges. | ? - Sounds close to the concept of a general permit, may be applicable to nondelegated states. | OK - A modification of the general permit, a good concept. | ? - May be a useful alternative. | OK - Good idea, especially for unique, noneffluent discharges and emergency permitting needs. Option to revoke if a problem. | 3-OK<br>4-?<br>3-NO |
| **Exclusion from NPDES** | OK - Ideal for some categories, minor sources which are less significant than runoff. | ? - Perhaps, but some mechanism for regulation is still needed. | NO - Perhaps, prefer to determine on a case-by-case basis. | ? - Perhaps, but some allowances must be set for permitting authorities to permit facilities on a case-by-case basis. | OK - Especially for unique, noneffluent type discharges. | 3-OK<br>5-?<br>2-NO |

KEY:
OK - generally in agreement with the category
NO - generally in opposition to the category
? - maybe, undecided, or no comment

## STATE RESPONSES TO POTENTIAL DE MINIMIS REGULATORY OPTIONS

| | Maine | New Jersey | Pennsylvania | Kentucky | Wisconsin |
|---|---|---|---|---|---|
| **Model Permit** | NO - Is a modification of the standard procedure being used currently. | OK - Agency would probably not object. | NO - Would have limited application within PA due to intricate water quality standards. | OK - Is currently used. | NO - Already in use, not much benefit |
| **General Permit** | OK - A lot of potential, would also support an effort to make the process more flexible. | OK - Can be effective to balance resources and priorities, however, something is lost with this process. | OK - May be applicable. | OK - Has been effective in KY program for coal mines and individual homes. | OK - Good concept, one-half of WI facilities are covered under general permits, mostly de minimis. |
| **Ten-Year Permit** | OK - Particularly for general permit categories. | ? - NJ has previously been opposed to this concept. | OK - Good administrative action for dealing with minors. | ? - Only for general permit categories. | OK - In favor of this option for minor permits. |
| **Over-the-Counter** | OK - May be a good concept for particular categories. | ? - Probably would not fit by itself, maybe combined with the general permit. | NO - If the process is that simple, why bother with a permit? | NO | OK - Elimination of public notice would be extremely helpful. |
| **Exclusion from NPDES** | OK - In some cases. Rulings for de minimis categories may be a related alternative. | NO | OK - Should be some exclusions. Perhaps, swimming pools and noncontact cooling. | OK - For some categories. | OK - In some cases. |

KEY:
OK - generally in agreement with the category
NO - generally in opposition to the category
? - maybe, undecided
No comment - not discussed or no feeling toward category

STATE RESPONSES TO POTENTIAL DE MINIMIS REGULATORY OPTIONS (continued)

| | Texas | Missouri | California | Washington | Totals |
|---|---|---|---|---|---|
| **Model Permit** | ? - Is currently used for domestic permits. | NO - Standard procedure already in use. | ? - Not much different than what is being done. | NO - Does not help get around regulatory and administrative problems. | 2 - OK<br>2 - ?<br>5 - NO |
| **General Permit** | OK - Good tool for large minor categories. | OK - Good for some classes, working on a general permit for sewage dischargers. | OK - Good idea, have applied for authority. | OK | 9 - OK |
| **Ten-Year Permit** | NO - For process-oriented discharges, the 10-year term is too long. | ? - Might be all right, but would have to change state law. | OK - Use a similar system for land discharges; 3, 5, and 10-year permit basis based on potential environmental impact. | NO - Permits and regulations change too much. May be used only as a temporary means to eliminate backlog "extension provisions." | 4 - OK<br>3 - ?<br>2 - NO |
| **Over-the-Counter** | NO - State law requires notification, would not change. | NO - Would cause administrative problems. | OK - Allow use of own public notification requirements. | NO - Should not eliminate public notification. | 3 - OK<br>1 - ?<br>5 - NO |
| **Exclusion from NPDES** | ? - Zero discharge permits are excluded. | ? - A general permit with no monitoring requirements would be better. | OK - By means of a waiver with a set of conditions. | OK - May fit some categories. Short-term discharges should be under some other regulatory mechanism, possibly a rule. | 6 - OK<br>2 - ?<br>1 - NO |

KEY:
OK - generally in agreement with the category
NO - generally in opposition to the category
? - maybe, undecided
No comment - not discussed or no feeling toward category

# APPENDIX E

## Toxicity Indices for Industrial Subcategories

This appendix provides the industrial evaluations completed by EPA's National Enforcement Investigative Center, which defined the probable discharge of toxic pollutants from an industry, based on an assignment of toxicity indices. Industry types and subcategories in Groups II through VI had a high probability of toxic pollutant discharge and were excluded from *de minimis*.

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | | Toxicity Index | Toxicity Group |
|---|---|---|---|---|---|
| Adhesives & Sealants | Adhesives & Sealants | 2891 | | 206 | V |
| Aluminum Forming | Can Making | 3411 | | 129 | V |
| Aluminum Forming | Casting | 3353 | 3355 | 129 | V |
| Aluminum Forming | Cleaning & Pickling | 3471 | | 129 | V |
| Aluminum Forming | Cold Rolling | 3353 | 3355 | 129 | V |
| Aluminum Forming | Drawing | 3354 | 3357 | 129 | V |
| Aluminum Forming | Extruding | 3354 | | 129 | V |
| Aluminum Forming | Foil Rolling | 3353 | | 129 | V |
| Aluminum Forming | Forging | 3463 | | 65 | III |
| Aluminum Forming | Heat Treating | 3398 | | 129 | V |
| Aluminum Forming | Hot Rolling | 3353 | 3355 | 129 | V |
| Auto & Other Laundries | Car Wash | 7542 | | 15 | II |
| Auto & Other Laundries | Carpet & Upholstery Cleaning | 7217 | | 15 | II |
| Auto & Other Laundries | Coin-Operated Laundries | 7215 | | 15 | II |
| Auto & Other Laundries | Diaper Service | 7214 | | 15 | II |
| Auto & Other Laundries | Dry Cleaning Plants | 7216 | | 15 | II |
| Auto & Other Laundries | Industrial Laundry | 7218 | | 150 | V |
| Auto & Other Laundries | Linen Supply | 7213 | | 150 | V |
| Auto & Other Laundries | Power Laundries | 7211 | | 15 | II |
| Battery Manufacturing | Alkaline Manganese Batteries | 3691 | 3692 | 78 | III |
| Battery Manufacturing | Carbon-Zinc Air Batteries | 3691 | 3692 | 39 | III |
| Battery Manufacturing | Carbon-Zinc Paper Lined Batteries | 3691 | 3692 | 78 | III |
| Battery Manufacturing | Carbon-Zinc, Paste Batteries | 3691 | 3692 | 78 | III |
| Battery Manufacturing | Lead Acid Batteries | 3691 | 3692 | 78 | III |
| Battery Manufacturing | Lead Acid Reserve Batteries | 3691 | 3692 | 8 | II |
| Battery Manufacturing | Lithium Batteries | 3691 | 3692 | 39 | III |
| Battery Manufacturing | Magnesium Reserve Batteries | 3691 | 3692 | 39 | III |
| Battery Manufacturing | Magnesium-Carbon Batteries | 3691 | 3692 | 39 | III |
| Battery Manufacturing | Mercury (Ruben) Batteries | 3691 | 3692 | 78 | III |
| Battery Manufacturing | Mercury (Weston) Cells | 3691 | 3692 | 39 | III |
| Battery Manufacturing | Miniature Alkaline Batteries | 3691 | 3692 | 39 | III |
| Battery Manufacturing | Nickel Zinc Batteries | 3691 | 3692 | 39 | III |
| Battery Manufacturing | Nickel-Cadmium, Dry Process Batteries | 3691 | 3692 | 78 | III |
| Battery Manufacturing | Nickel-Cadmium, Wet Process Batteries | 3691 | 3692 | 78 | III |
| Battery Manufacturing | Silver oxide-Zinc Batteries | 3691 | 3692 | 78 | III |
| Carbon Black | Channel Process | 2895 | | 12 | II |
| Carbon Black | Furnace Process | 2895 | | 12 | II |
| Carbon Black | Lamp Process | 2895 | | 12 | II |
| Carbon Black | Thermal Process | 2895 | | 12 | II |
| Coal Mining | Acid or Ferruginous Mines | 1111 | 1211 | 252 | V |
| Coal Mining | Alkaline Mines | 1111 | 1211 | 252 | V |
| Coal Mining | Anthracite segment of acid mine subcategory | 1111 | | 126 | V |
| Coal Mining | Coal Preparation Plant; | 1111 | 1211 | 252 | V |
| Coal Mining | Regrade/Revegetation | 1111 | 1211 | 252 | V |
| Coil Coating | Aluminum & Aluminized Steel | 3479 | 3497 | 31 | III |
| Coil Coating | Cold Rolled Steel | 3479 | | 31 | III |
| Coil Coating | Galvanized Steel | 3479 | | 31 | III |
| Copper Forming | Cold Rolling | 3351 | | 58 | III |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | | | | Toxicity Index | Toxicity Group |
|---|---|---|---|---|---|---|---|
| Copper Forming | Copper Foil | 3351 | | | | 29 | III |
| Copper Forming | Drawing | 3351 | | | | 58 | III |
| Copper Forming | Extrusion | 3351 | | | | 58 | III |
| Copper Forming | Forgeing | 3463 | | | | 29 | III |
| Copper Forming | Hot Rolling | 3351 | | | | 58 | III |
| Electrical Products | Capacitors | 3629 | 3675 | | | 206 | V |
| Electrical Products | Carbon & graphite products | 3624 | | | | 206 | V |
| Electrical Products | Cathode ray & TV picture tubes | 3672 | | | | 206 | V |
| Electrical Products | Crystals & Crystal products | 3679 | | | | 206 | V |
| Electrical Products | Electric & electronic components | 3699 | 3693 | 3679 | | 206 | V |
| Electrical Products | Electric lamps | 3641 | | | | 206 | V |
| Electrical Products | Electron tubes & glass encapsulated devices | 3671 | 3673 | | | 206 | V |
| Electrical Products | Ferrite electronic parts | 3679 | | | | 206 | V |
| Electrical Products | Fuel cells | 3679 | | | | 206 | V |
| Electrical Products | Fuel cells | 3679 | | | | 103 | V |
| Electrical Products | Insulated wire & cable | 3357 | | | | 206 | V |
| Electrical Products | Insulating devices | 3644 | | | | 206 | V |
| Electrical Products | Motors, generators & alternators | 3621 | 3694 | | | 206 | V |
| Electrical Products | Resistance heaters | 3642 | | | | 206 | V |
| Electrical Products | Semi-conductors | 3674 | | | | 206 | V |
| Electrical Products | Switchgear | 3613 | | | | 206 | V |
| Electrical Products | Transformers, dry | 3612 | 3677 | | | 206 | V |
| Electrical Products | Transformers, liquid filled | 3612 | 3677 | | | 206 | V |
| Electroplating | Job Shops | 3471 | 3479 | | | 136 | V |
| Electroplating | Processes within Electroplating category | 3471 | | | | 136 | V |
| Explosives (Commercial Sect) | Explosives | 2892 | | | | 14 | II |
| Explosives (Commercial Sect) | Explosives | 2892 | | | | 7 | II |
| Explosives (Commercial Sect) | Initiators | 2892 | | | | 14 | II |
| Explosives (Commercial Sect) | Initiators | 2892 | | | | 7 | II |
| Explosives (Commercial Sect) | LAP & Dry Mix | 2892 | | | | 1 | II |
| Explosives (Commercial Sect) | Propellants | 2892 | | | | 14 | II |
| Explosives (Commercial Sect) | Propellants | 2892 | | | | 7 | II |
| Explosives (Military Sect) | Demilitarization | 2892 | | | | 7 | II |
| Explosives (Military Sect) | Explosives | 2892 | | | | 7 | II |
| Explosives (Military Sect) | Initiators | 2892 | | | | 7 | II |
| Explosives (Military Sect) | LAD | 2892 | | | | 7 | II |
| Explosives (Military Sect) | Propellants | 2892 | | | | 7 | II |
| Explosives (Military Sect) | Pyrotechnics | 2892 | | | | 7 | II |
| Foundry | Aluminum Casting | 3361 | | | | 57 | III |
| Foundry | Copper Casting | 3362 | | | | 57 | III |
| Foundry | Iron & Steel | 3321 | 3322 | 3324 | 3325 | 57 | III |
| Foundry | Lead Casting | 3369 | | | | 57 | III |
| Foundry | Magnesium Casting | 3369 | | | | 57 | III |
| Foundry | Nickel Casting | 3369 | | | | 29 | III |
| Foundry | Tin Casting | 3369 | | | | 29 | III |
| Foundry | Titanium Casting | 3369 | | | | 29 | III |
| Foundry | Zinc Casting | 3369 | | | | 57 | III |
| Gum & Wood Chemicals | Char & Charcoal briquettes | 2861 | | | | 9 | II |

TOXICITY INDICES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | Toxicity Index | Toxicity Group |
|---|---|---|---|---|
| Gum & Wood Chemicals | Essential Oil | 2861 | 9 | II |
| Gum & Wood Chemicals | Gum rosin | 2861 | 9 | II |
| Gum & Wood Chemicals | Rosin based derivatives | 2861 | 92 | IV |
| Gum & Wood Chemicals | Rosin based derivatives in SIC Code | 2821 | 46 | III |
| Gum & Wood Chemicals | Rosin derivatives | 2861 | 46 | III |
| Gum & Wood Chemicals | Sulfate turpentine | 2861 | 92 | IV |
| Gum & Wood Chemicals | Sulfate turpentine | 2861 | 46 | III |
| Gum & Wood Chemicals | Tall oil | 2861 | 92 | IV |
| Gum & Wood Chemicals | Tall oil | 2861 | 46 | III |
| Gum & Wood Chemicals | Wood rosin | 2861 | 92 | IV |
| Gum & Wood Chemicals | Wood rosin | 2861 | 46 | III |
| Inorganic Chemicals Manuf. | Aluminum Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Aluminum Compounds | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Aluminum Fluoride | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Aluminum Hydroxide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Aluminum Oxide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Aluminum Sulfate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Alums | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Ammonia Alum | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Ammonium Chloride | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Ammonium Compounds | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Ammonium Hydroxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Ammonium Molybdate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Ammonium Perchlorate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Ammonium Thiosulfate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Barium Carbonate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Barium Compounds | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Barium Sulfate | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Beryllium Oxide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Bleaching Powder | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Borax | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Boric Acid | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Boron Compounds (not prod. @ mines) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Borosilicate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Brine | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Bromine | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Byrytes Pigments | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Calcium | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Calcium Carbide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Calcium Carbonate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Calcium Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Calcium Compounds (inorg) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Calcium Hypochlorite | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Calcium Oxide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Carbon Dioxide | 2811 | 16 | II |
| Inorganic Chemicals Manuf. | Carbon Monoxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Cerium Salts | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Chloride Process | 2816 | 162 | V |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | Toxicity Index | Toxicity Group |
|---|---|---|---|---|
| Inorganic Chemicals Manuf. | Chlorine | 2812 | 162 | V |
| Inorganic Chemicals Manuf. | Chlorosulfuric Acid | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Chrome Pigments | 2816 | 162 | V |
| Inorganic Chemicals Manuf. | Chromic Acid | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Chromium Oxide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Chromium Sulfate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Cobalt Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Cobalt Sulfate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Cobalt 60 (radioactive) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Copper Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Copper Iodide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Copper Sulfate | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Cuprous Oxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Diaphragm cell | 2812 | 162 | V |
| Inorganic Chemicals Manuf. | Ferric Chloride | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Ferrous Sulfate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Fissionable Materials Production | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Fluorine | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Gases, Industrial Comp. Liquid/Solid | 2813 | 81 | IV |
| Inorganic Chemicals Manuf. | Heavy Water | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Hydrated Alumina Silicate Pwdr. | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Hydrochloric Acid | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Hydrofluoric Acid | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Hydrogen | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Hydrogen Cyanide | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Hydrogen Peroxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Hydrogen Sulfide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Hydrophosphites | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Indium Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Inorganic Acids (exc. HNO2 or H2PO4) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Iodides | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Iodine | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Iron Colors | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Iron Oxide, Black | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Iron Oxide, Magnetic | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Iron Oxide, Yellow | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Isotopes Radioactive | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Lead Arsenate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Lead Dioxide, Brown (PbO2) | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Lead Monoxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Lead Oxide, Red (Pb3O4) | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Lead Silicate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Lithium Carbonate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Lithium Compounds | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Luminus Compounds (radium) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Magnesium Compounds (inorg) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Manganese Dioxide (powder synthetic) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Manganese Sulfate | 2819 | 16 | II |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | Toxicity Index | Toxicity Group |
|---|---|---|---|---|
| Inorganic Chemicals Manuf. | Mercury cell | 2812 | 162 | V |
| Inorganic Chemicals Manuf. | Mercury Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Mercury Oxide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Nickel Ammonium Sulfate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Nickel Carbonate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Nickel Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Nickel Fluoborate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Nickel Nitrate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Nickel Sulfate | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Nitric Acid | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Nitric Acid (strong) | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Nitrous Oxide | 2813 | 81 | IV |
| Inorganic Chemicals Manuf. | Nuclear Fuel Reactor Cases, Inorganic | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Nuclear Fuel Scrap Re-Processing | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Ochers | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Oleum (fuming sulfuric acid) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Oxidation Catalyst from Porcelain | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Oxygen & Nitrogen | 2813 | 16 | II |
| Inorganic Chemicals Manuf. | Perchloric Acid | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Peroxides, Inorganic | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potash Alum | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potash Magnesia | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Aluminum Sulfate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Bromide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Carbonate | 2812 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Chlorate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Chloride | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Potassium Compounds Inorg.(exc.KOH-K2CO3) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Cyanide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Dichromate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Potassium Hypochlorate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Iodide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Potassium Metal | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Potassium Nitrate & Sulfate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Potassium Permanganate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Potassium Sulfate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Radium Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Radium Luminous Compounds | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Rare Earth Metal Salts | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Reagent Grade Chem (inorg.ref.from tech. grades) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Salts of Rare Earth Metals | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Satin White Pigment | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Siennas | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Silica Amorphous | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Silica Gel | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Silver Bromide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Silver Carbonate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Silver Chloride | 2819 | 81 | IV |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | Toxicity Index | Toxicity Group |
|---|---|---|---|---|
| Inorganic Chemicals Manuf. | Silver Cyanide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Silver Iodide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Silver Nitrate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Silver Oxide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Soda Alum | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Antimoniate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Bicarbonate | 2812 | 16 | II |
| Inorganic Chemicals Manuf. | Sodium Bisulfite | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Sodium Carbonate | 2812 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Chlorate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Compounds, Inorganic | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Cyanide | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Dichromate | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Sodium Fluoride | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Sodium Hydrosulfite | 2819 | 162 | V |
| Inorganic Chemicals Manuf. | Sodium Hydrosulfide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Sodium Metal | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Sodium Silicate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Sodium Silicofluoride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Sulfite | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sodium Thiosulfate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Stannic & Stannous Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Stannic Oxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Strontium Carbonate (precipitated & oxide) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Strontium Nitrate | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sulfate Process | 2816 | 162 | V |
| Inorganic Chemicals Manuf. | Sulfides & Sulfites | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sulfocyanides | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sulfur (rec.or ref. incl. sour nat. gas) | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sulfur Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sulfur Dioxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Sulfur Hexafluoride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Sulfuric Acid | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Thiocyanates, Inorganic | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Tin Compounds, Inorganic | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Titanium Dioxide | 2816 | 162 | V |
| Inorganic Chemicals Manuf. | Ultramarine Pigment | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Umbers | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Uranium Alog, Radioactive | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | White Lead Pigment (Pb(OH)2•PbCO)3 | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Whiting | 2816 | 81 | IV |
| Inorganic Chemicals Manuf. | Zinc Chloride | 2819 | 81 | IV |
| Inorganic Chemicals Manuf. | Zinc Oxide | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Zinc Sulfate | 2819 | 16 | II |
| Inorganic Chemicals Manuf. | Zinc Sulfide | 2819 | 81 | IV |
| Iron & Steel | Basic Oxygen Furnace (Wet Air Pollu. Control Methods) | 3312 | 45 | III |
| Iron & Steel | Basic Oxygen Furnace; Semi-Wet Air Pollu. Control Methods | 3312 | 5 | II |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | | | | Toxicity Index | Toxicity Group |
|---|---|---|---|---|---|---|---|
| Iron & Steel | Beehive Coke | 3312 | | | | 5 | II |
| Iron & Steel | Blast Furnace (Ferromanganese) | 3312 | | | | 45 | III |
| Iron & Steel | Blast Furnace (Iron) | 3312 | | | | 45 | III |
| Iron & Steel | By-Product Coke | 3312 | | | | 45 | III |
| Iron & Steel | Cold Rolling | 3312 | 3316 | | | 45 | III |
| Iron & Steel | Combination Acid Pickling (Batch & Continuous) | 3312 | | | | 45 | III |
| Iron & Steel | Continuous Alkaline Cleaning | 3312 | | | | 45 | III |
| Iron & Steel | Continuous Casting & Pressure Slab Molding | 3312 | 3312 | | | 45 | III |
| Iron & Steel | Electric Arc Furnace (Wet Air Pollu. Control Methods) | 3312 | 3313 | | | 45 | III |
| Iron & Steel | Electric Arc Furnace; Semi-Wet Air Pollu. Control Methods | 3312 | 3313 | | | 5 | II |
| Iron & Steel | Hot Coatings - Galvanizing | 3312 | 3479 | | | 45 | III |
| Iron & Steel | Hot Coatings - Terne | 3312 | | | | 45 | III |
| Iron & Steel | Hot Forming - Flat | 3312 | | | | 45 | III |
| Iron & Steel | Hot Forming - Primary | 3312 | | | | 45 | III |
| Iron & Steel | Hot Forming - Section | 3312 | 3315 | | | 45 | III |
| Iron & Steel | Open Hearth Furnace | 3312 | | | | 45 | III |
| Iron & Steel | Pickling - Hydrochloric Acid - Batch & Continuous | | | | | 45 | III |
| Iron & Steel | Pickling - Sulfuric Acid - Batch & Continuous | | | | | 45 | III |
| Iron & Steel | Pipe & Tube | 3312 | 3317 | | | 45 | III |
| Iron & Steel | Scale Removal (Kolene & Hydride) | 3312 | | | | 45 | III |
| Iron & Steel | Sintering | 3312 | | | | 45 | III |
| Iron & Steel | Vacuum Degassing | 3312 | 3312 | | | 45 | III |
| Iron & Steel | Wire Pickling & Coating | 3312 | | | | 45 | III |
| Leather Tanning & Finishing | Boot & Shoe Cut Stuck & Findings | 3131 | | | | 20 | II |
| Leather Tanning & Finishing | Footwear, Except Rubber, NEC | 3149 | | | | 20 | II |
| Leather Tanning & Finishing | Hair pulp, chrome tan, retan-wet finish | 3111 | | | | 197 | V |
| Leather Tanning & Finishing | Hair save, chrome tan, retan-wet finish | 3111 | | | | 197 | V |
| Leather Tanning & Finishing | Hair save, non-chrome tan, retan-wet finish | 3111 | | | | 197 | V |
| Leather Tanning & Finishing | House Slippers | 3142 | | | | 20 | II |
| Leather Tanning & Finishing | Leather Gloves & Mittens | 3151 | | | | 20 | II |
| Leather Tanning & Finishing | Leather Goods, NEC | 3199 | | | | 20 | II |
| Leather Tanning & Finishing | Luggage | 316 | | | | 20 | II |
| Leather Tanning & Finishing | Men's Footwear, Except Athletic | 3143 | | | | 20 | II |
| Leather Tanning & Finishing | No beamhouse | 3111 | | | | 197 | V |
| Leather Tanning & Finishing | Personal Leather Goods except Women's Handbags | 3172 | | | | 20 | II |
| Leather Tanning & Finishing | Retan-wet finish | 3111 | | | | 197 | V |
| Leather Tanning & Finishing | Shearling | 3111 | | | | 197 | V |
| Leather Tanning & Finishing | Through-the-blue | 3111 | | | | 197 | V |
| Leather Tanning & Finishing | Women's Footwear, Except Athletic | 3144 | | | | 20 | II |
| Leather Tanning & Finishing | Women's Handbags & Purses | 3171 | | | | 20 | II |
| Mach & Mech - Shipbuilding | Ship Building & Repairing | 3731 | | | | 86 | IV |
| Mach & Mech-Porcelain Enamel | Aluminum | 3631 | | | | 72 | III |
| Mach & Mech-Porcelain Enamel | Iron | 3431 | | | | 72 | III |
| Mach & Mech-Porcelain Enamel | Steel | 3633 | 3632 | 3639 | 3631 | 72 | III |
| Mach & Mech-Porcelain Enamel | Strip Steel | 3633 | 3632 | 3639 | | 67 | III |
| Mach & Mech.-Photo. Suppl. | Diazo, Solvent Process | 3861 | | | | 124 | V |
| Mach & Mech.-Photo. Suppl. | Photographic Equipment & Supplies | 3861 | | | | 248 | V |
| Mach & Mech.-Photo. Suppl. | Thermal, Solvent Process | 3861 | | | | 124 | V |

TOXICITY INDICES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | Toxicity Index | Toxicity Group |
|---|---|---|---|---|
| Mech & Mach-Porcelain Enamel | Copper | 3911 | 72 | III |
| Nonferrous Metals | Bauxite | 3339 | 179 | V |
| Nonferrous Metals | Indium | 3339 | 179 | V |
| Nonferrous Metals | Primary Aluminum | 3334 | 358 | VI |
| Nonferrous Metals | Primary Antimony | 3339 | 36 | III |
| Nonferrous Metals | Primary Arsenic | 3339 | 36 | III |
| Nonferrous Metals | Primary Barium | 3339 | 36 | III |
| Nonferrous Metals | Primary Beryllium | 3339 | 358 | VI |
| Nonferrous Metals | Primary Bismuth | 3339 | 36 | III |
| Nonferrous Metals | Primary Boron | 3339 | 179 | V |
| Nonferrous Metals | Primary Cadmium | 3339 | 358 | VI |
| Nonferrous Metals | Primary Calcium | 3339 | 36 | III |
| Nonferrous Metals | Primary Cesium | 3339 | 179 | V |
| Nonferrous Metals | Primary Cobalt | 3339 | 179 | V |
| Nonferrous Metals | Primary Columbium | 3339 | 358 | VI |
| Nonferrous Metals | Primary Copper | 3331 | 358 | VI |
| Nonferrous Metals | Primary Gallium | 3339 | 179 | V |
| Nonferrous Metals | Primary Germanium | 3339 | 179 | V |
| Nonferrous Metals | Primary Gold | 3339 | 179 | V |
| Nonferrous Metals | Primary Hafnium | 3339 | 179 | V |
| Nonferrous Metals | Primary Lead | 3332 | 358 | VI |
| Nonferrous Metals | Primary Lithium | 3339 | 179 | V |
| Nonferrous Metals | Primary Magnesium | 3339 | 179 | V |
| Nonferrous Metals | Primary Mercury | 3339 | 179 | V |
| Nonferrous Metals | Primary Molybdenum | 3339 | 179 | V |
| Nonferrous Metals | Primary Nickel | 3339 | 179 | V |
| Nonferrous Metals | Primary Platinum Group | 3339 | 179 | V |
| Nonferrous Metals | Primary Rare Earths | 3339 | 179 | V |
| Nonferrous Metals | Primary Rhenium | 3339 | 179 | V |
| Nonferrous Metals | Primary Rubidium | 3339 | 179 | V |
| Nonferrous Metals | Primary Selenium | 3339 | 358 | VI |
| Nonferrous Metals | Primary Silver | 3339 | 358 | VI |
| Nonferrous Metals | Primary Tantalum | 3339 | 358 | VI |
| Nonferrous Metals | Primary Tellurium | 3339 | 358 | VI |
| Nonferrous Metals | Primary Tin | 3339 | 36 | III |
| Nonferrous Metals | Primary Titanium | 3339 | 179 | V |
| Nonferrous Metals | Primary Tungsten | 3339 | 358 | VI |
| Nonferrous Metals | Primary Uranium | 3339 | 179 | V |
| Nonferrous Metals | Primary Zinc | 3333 | 358 | VI |
| Nonferrous Metals | Primary Zirconium | 3339 | 179 | V |
| Nonferrous Metals | Secondary Aluminum | 3341 | 358 | VI |
| Nonferrous Metals | Secondary Bauxite | 3341 | 36 | III |
| Nonferrous Metals | Secondary Beryllium | 3341 | 36 | III |
| Nonferrous Metals | Secondary Boron | 3341 | 179 | V |
| Nonferrous Metals | Secondary Cobalt | 3341 | 179 | V |
| Nonferrous Metals | Secondary Columbium | 3341 | 179 | V |
| Nonferrous Metals | Secondary Copper | 3341 | 358 | VI |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | | | | Toxicity Index | Toxicity Group |
|---|---|---|---|---|---|---|---|
| Nonferrous Metals | Secondary Lead | 3341 | | | | 358 | VI |
| Nonferrous Metals | Secondary Magnesium | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Mercury | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Nickel | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Plutonium | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Precious Metals | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Rhenium | 3339 | | | | 179 | V |
| Nonferrous Metals | Secondary Silver | 3341 | | | | 358 | VI |
| Nonferrous Metals | Secondary Tantalum | 3341 | | | | 36 | III |
| Nonferrous Metals | Secondary Tin | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Titanium | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Tungsten | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Uranium | 3341 | | | | 179 | V |
| Nonferrous Metals | Secondary Zinc | 3341 | | | | 179 | V |
| Ore Mining & Dressing | Aluminum | 1051 | | | | 54 | III |
| Ore Mining & Dressing | Base & Precious Metals | 1021 | 1031 | 1041 | 1044 | 54 | III |
| Ore Mining & Dressing | Base & Precious Metals | 1021 | 1041 | | | 27 | II |
| Ore Mining & Dressing | Ferroalloy | 1061 | | | | 54 | III |
| Ore Mining & Dressing | Ferroalloy | 1061 | | | | 27 | II |
| Ore Mining & Dressing | Iron Ore | 1011 | | | | 54 | III |
| Ore Mining & Dressing | Iron Ore | 1011 | | | | 27 | II |
| Ore Mining & Dressing | Mercury | 1092 | | | | 5 | II |
| Ore Mining & Dressing | Metal Ore | 1099 | | | | 5 | II |
| Ore Mining & Dressing | Uranium | 1094 | | | | 54 | III |
| Organic Chemicals | Cyclic Crudes & Interned., Dyes & Organic Pigments | 2865 | | | | 202 | V |
| Organic Chemicals | Industrial Organic Chemicals, NEC | 2869 | | | | 202 | V |
| Paint & Ink | Caustic or Water Washed Ink | 2893 | | | | 229 | V |
| Paint & Ink | Caustic or Water Washed Paint | 2851 | | | | 229 | V |
| Paint & Ink | Solvent Wash Ink | 2893 | | | | 23 | II |
| Paint & Ink | Solvent Wash Paint | 2851 | | | | 23 | II |
| Pesticides | Amides | 2819 | 2869 | | | 640 | VI |
| Pesticides | Formulation & Packaging of Agricultural Chemicals | 2879 | | | | 320 | VI |
| Pesticides | Halogenated Organics | 2819 | 2869 | | | 640 | VI |
| Pesticides | Heterocyclic Nitrogens | 2819 | 2869 | | | 640 | VI |
| Pesticides | Metallo Organic | 2819 | 2869 | | | 640 | VI |
| Pesticides | Miscellaneous | 2819 | 2869 | | | 640 | VI |
| Pesticides | No Discharge Manufacturers | 2819 | 2869 | | | 64 | III |
| Pesticides | Organophosphorus | 2819 | 2869 | | | 640 | VI |
| Petroleum Refining | Petroleum Refining | 2911 | | | | 211 | V |
| Pharmaceutical Manufacturing | Chemical Synthesis (Medicinals & Botanicals) | 2833 | | | | 391 | VI |
| Pharmaceutical Manufacturing | Extraction (Biological Products) | 2831 | | | | 391 | VI |
| Pharmaceutical Manufacturing | Extraction (Medicinals & Botanicals) | 2833 | | | | 391 | VI |
| Pharmaceutical Manufacturing | Fermentation (Medicinals & Botanicals) | 2833 | | | | 391 | VI |
| Pharmaceutical Manufacturing | Mixing & Formulation (Pharmaceutical Preparations) | 2834 | | | | 391 | VI |
| Phosphate Manufacturing | Defluorinated Acid | 2819 | | | | 26 | II |
| Phosphate Manufacturing | Defluorinated Acid | 2819 | | | | 13 | II |
| Phosphate Manufacturing | Defluorinated Rock | 2819 | | | | 26 | II |
| Phosphate Manufacturing | Defluorinated Rock | 2819 | | | | 13 | II |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | | | | Toxicity Index | Toxicity Group |
|---|---|---|---|---|---|---|---|
| Phosphate Manufacturing | Elemental Phosphorus | 2819 | | | | 26 | II |
| Phosphate Manufacturing | Elemental Phosphorus | 2819 | | | | 13 | II |
| Phosphate Manufacturing | Phorphorus Derived Chemicals | 2819 | | | | 26 | II |
| Phosphate Manufacturing | Phosphates | 2819 | | | | 26 | II |
| Phosphate Manufacturing | Sodium Phosphates | 2819 | | | | 26 | II |
| Phosphate Manufacturing | Sodium Phosphates | 2819 | | | | 13 | II |
| Plastics & Synthetics | Cellulosic Man-Made Fibers | 2823 | | | | 468 | VI |
| Plastics & Synthetics | Plastic Materials, Synthetic Resins, Nonvulcanizable Elas. | 2821 | | | | 468 | VI |
| Plastics & Synthetics | Synthetic Organic Fibers, Except Cellulosic | 2824 | | | | 468 | VI |
| Plastics Processing | Miscellaneous Plastics Products | 3079 | | | | 113 | V |
| Plastics Processing | Plastics Processing Without Contact Process Water | 3079 | | | | 11 | II |
| Plastics Processing | Solution Casting | 3079 | | | | 57 | III |
| Plastics Processing | Water Slurry Preforming Processes | 3079 | | | | 57 | III |
| Printing & Publishing | Pressroom - Water based ink | 2700 | | | | 5 | II |
| Printing & Publishing | Printing & Publishing | 2700 | | | | 1 | II |
| Pulp, Paper & Paperboard | Alkaline Market Pulp | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Bleached Kraft - NCT Paper | 2611 | 2631 | | | 67 | III |
| Pulp, Paper & Paperboard | Bleached Kraft - Dissolving | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Bleached Kraft - Fine Papers | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Bleached Kraft Newsprint | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Chemi-Mechanical Pulp-CMP | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Deink Pulp - Fine Tissue | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Deink Pulp - News | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Dissolving Sulfite | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Groundwood-CMN | 2611 | 2631 | | | 67 | III |
| Pulp, Paper & Paperboard | Groundwood-Fine | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Miscellaneous Non-Wood Pulp | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Non-Integrated - Fine | 2621 | | | | 67 | III |
| Pulp, Paper & Paperboard | Non-Integrated - Filter & Non-Woven Paper | 2621 | | | | 67 | III |
| Pulp, Paper & Paperboard | Non-Integrated - Lightweight & Thin Paper | 2621 | | | | 67 | III |
| Pulp, Paper & Paperboard | Non-Integrated - Paperboard | 2621 | | | | 67 | III |
| Pulp, Paper & Paperboard | Non-Integrated - Specialty | 2621 | | | | 67 | III |
| Pulp, Paper & Paperboard | Non-Integrated - Tissue | 2621 | | | | 67 | III |
| Pulp, Paper & Paperboard | Paper Grade Sulfite | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Semi - Chemical | 2611 | 2631 | | | 67 | III |
| Pulp, Paper & Paperboard | Thermo-Mechanical Pulp | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Unbleached Kraft/Semi-Chemical X-Recovery | 2611 | 2631 | | | 67 | III |
| Pulp, Paper & Paperboard | Waste Paper - Board | 2631 | 2661 | | | 67 | III |
| Pulp, Paper & Paperboard | Waste Paper - Construction | 2661 | | | | 67 | III |
| Pulp, Paper & Paperboard | Waste Paper - Molded | 2611 | | | | 67 | III |
| Pulp, Paper & Paperboard | Waste Paper - Tissue | 2611 | | | | 67 | III |
| Rubber | Large-sized General Molded, Extruded & Fabr. Rubber Plants | 3021 | 3041 | 3069 | 3293 | 10 | II |
| Rubber | Latex Foam | 3069 | | | | 10 | II |
| Rubber | Latex-Dipped, Latex-Extruded & Latex Molded Goods | 3021 | 3069 | | | 10 | II |
| Rubber | Medium-sized General molded, Extruded & Fabr. Rubber Plants | 3021 | 3041 | 3069 | 3293 | 10 | II |
| Rubber | Pan, Dry Digestion, & Mechanical Reclaim | 3031 | | | | 100 | V |
| Rubber | Small-sized General Molded, Extruded & Fabr. Rubber Plants | 3021 | 3041 | 3069 | 3293 | 10 | II |
| Rubber | Synthetic Crumb Rubber Prod. - Emulsion Polymerization | 2822 | | | | 10 | II |
| Rubber | Synthetic Crumb Rubber Prod. - Solution Polymerization | 2822 | | | | 10 | II |

TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | | | | Toxicity Index | Toxicity Group |
|---|---|---|---|---|---|---|---|
| Rubber | Synthetic Latex Rubber Production | 2822 | | | | 10 | II |
| Rubber | Tire & Inner Tube Production | 3011 | | | | 10 | II |
| Rubber | Wet Digestion Reclaim | 3031 | | | | 100 | V |
| Soaps & Detergents | Air-SO3 Sulfation & Sulfonation | 2843 | | | | 63 | III |
| Soaps & Detergents | Chlorosulfonic Acid Sulfation | 2843 | | | | 63 | III |
| Soaps & Detergents | Chlorosulfonic Acid Sulfation | 2843 | | | | 32 | III |
| Soaps & Detergents | Fatty Acid Manufacturing by Fat Splitting | 2841 | | | | 63 | III |
| Soaps & Detergents | Glycerine Concentration | 2841 | | | | 63 | III |
| Soaps & Detergents | Glycerine Distillation | 2841 | | | | 63 | III |
| Soaps & Detergents | Manufacturing of Bar Soaps | 2841 | | | | 63 | III |
| Soaps & Detergents | Manufacturing of Bar Soaps | 2841 | | | | 32 | III |
| Soaps & Detergents | Manufacturing of Detergent Bars & Cakes | 2841 | | | | 63 | III |
| Soaps & Detergents | Manufacturing of Detergent Bars & Cakes | 2841 | | | | 32 | III |
| Soaps & Detergents | Manufacturing of Drum Dried Detergents | 2841 | | | | 63 | III |
| Soaps & Detergents | Manufacturing of Drum Dried Detergents | 2841 | | | | 32 | III |
| Soaps & Detergents | Manufacturing of Dry Blended Detergents | 2841 | | | | 63 | III |
| Soaps & Detergents | Manufacturing of Dry Blended Detergents | 2841 | | | | 32 | III |
| Soaps & Detergents | Manufacturing of Liquid Soaps | 2841 | 2842 | 2844 | | 63 | III |
| Soaps & Detergents | Manufacturing of Liquid Detergents | 2841 | 2842 | | | 63 | III |
| Soaps & Detergents | Manufacturing of Liquid Soaps | 2841 | | | | 32 | III |
| Soaps & Detergents | Manufacturing of Liquid Detergents | 2843 | | | | 32 | III |
| Soaps & Detergents | Manufacturing of Soap Flakes & Powders | 2841 | | | | 63 | III |
| Soaps & Detergents | Manufacturing of Soap Flakes & Powders | 2841 | | | | 32 | III |
| Soaps & Detergents | Manufacturing of Spray Dried Detergents | 2841 | | | | 63 | III |
| Soaps & Detergents | Neutralization of Sulfuric Acid Esters & Sulfonic Acids | 2843 | | | | 63 | III |
| Soaps & Detergents | Oleum Sulfonation & Sulfation | 2843 | | | | 63 | III |
| Soaps & Detergents | Soap Manufacturing by Batch Kettle | 2841 | | | | 63 | III |
| Soaps & Detergents | Soap Manufacturing by Fatty Acid Neutralization | 2841 | | | | 63 | III |
| Soaps & Detergents | SO3 Solvent & Vacuum Sulfonation | 2843 | | | | 63 | III |
| Soaps & Detergents | SO3 Solvent & Vacuum Sulfonation | 2843 | | | | 32 | III |
| Soaps & Detergents | Sulfamic Acid Sulfation | 2843 | | | | 63 | III |
| Soaps & Detergents | Sulfamic Acid Sulfation | 2843 | | | | 32 | III |
| Steam Electric | Ash Pile Runoff | 4911 | 4931 | | | 19 | II |
| Steam Electric | Ash Transport Water | 4911 | 4931 | | | 37 | III |
| Steam Electric | Coal Pile Runoff | 4911 | 4931 | | | 4 | II |
| Steam Electric | Cooling Tower Blowdown | 4911 | 4931 | | | 37 | III |
| Steam Electric | Low Volume Wastes | 4911 | 4931 | | | 37 | III |
| Steam Electric | Metal Cleaning Wastes | 4911 | 4931 | | | 4 | II |
| Steam Electric | Once Through Cooling Water | 4911 | 4931 | | | 37 | III |
| Textile Mills | Apparel | 2300 | | | | 15 | II |
| Textile Mills | Carpet Finishing | 2271 | 2272 | 2279 | | 152 | V |
| Textile Mills | Cordage & Twine | 2298 | | | | 15 | II |
| Textile Mills | Felt Manufacturing | 2291 | | | | 152 | V |
| Textile Mills | Finishing | 2231 | | | | 152 | V |
| Textile Mills | Greige Mills | 2211 | 2221 | 2231 | 2241 | 15 | II |
| Textile Mills | Greige Mills | 2253 | 2271 | 2272 | 2281 | 15 | II |
| Textile Mills | Greige Mills | 2282 | 2283 | | | 15 | II |
| Textile Mills | Hosiery | 2251 | 2252 | | | 152 | V |

## TOXICITY INDEXES FOR INDUSTRIAL SUBCATEGORIES

| Major Industry | Industry Subcategory | SIC Code(s) | | | | Toxicity Index | Toxicity Group |
|---|---|---|---|---|---|---|---|
| Textile Mills | Knit Fabric Finishing | 2253 | 2254 | 2255 | 2256 | 152 | V |
| Textile Mills | Knit Fabric Finishing | 2257 | 2258 | 2259 | | 152 | V |
| Textile Mills | Nonwoven Manufacturing | 2297 | | | | 152 | V |
| Textile Mills | Padding & Upholstery | 2293 | | | | 15 | II |
| Textile Mills | Stock & Yarn Dyeing | 2281 | 2282 | 2283 | 2284 | 152 | V |
| Textile Mills | Wool Scouring | 2299 | | | | 152 | V |
| Textile Mills | Woven Fabric Finishing | 2211 | 2221 | 2241 | 2261 | 152 | V |
| Textile Mills | Woven Fabric Finishing | 2262 | 2269 | | | 152 | V |
| Timber Products Processing | Barking | 2661 | | | | 8 | II |
| Timber Products Processing | Hardboard - Dry Process | 2499 | | | | 8 | II |
| Timber Products Processing | Hardwood Dimension & Flooring Mills | 2426 | | | | 8 | II |
| Timber Products Processing | Insulation Board (2 subcategories) | 2661 | | | | 82 | IV |
| Timber Products Processing | Millwork | 2431 | | | | 8 | II |
| Timber Products Processing | Particleboard | 2492 | | | | 8 | II |
| Timber Products Processing | Plywood | 2435 | 2436 | | | 8 | II |
| Timber Products Processing | Sawmills & Planing Mills | 2421 | | | | 8 | II |
| Timber Products Processing | Special Products Sawmills, NEC | 2429 | | | | 8 | II |
| Timber Products Processing | Veneer | 2435 | 2436 | | | 8 | II |
| Timber Products Processing | Wet Process Hardboard (2 subcategories) | 2499 | | | | 82 | IV |
| Timber Products Processing | Wood Containers, NEC | 2449 | | | | 8 | II |
| Timber Products Processing | Wood Kitchen Cabinets | 2434 | | | | 8 | II |
| Timber Products Processing | Wood Preserving - Steam | 2491 | | | | 82 | IV |
| Timber Products Processing | Wood Preserving - Boulton | 2491 | | | | 82 | IV |
| Timber Products Processing | Wood Preserving - Inorganic | 2491 | | | | 8 | II |
| Timber Products Processing | Wood Products, NEC | 2499 | | | | 8 | II |

All other industry types and subcategories not listed are assigned Group I

# APPENDIX F

## Classification of Major and Minor NPDES Industrial Permits

This appendix provides the classification of major and minor permits that is currently in use by the Agency's Office of Wastewater Enforcement and Compliance (OWEC). The classification uses a rating system that is based on assessment of six characteristics of a facility's discharge.

## Classification of Major and Minor NPDES Industrial Permits

The Office of Wastewater Enforcement and Compliance designates an industrial discharger a major NPDES permit by applying a numerical permit rating system to each industrial permit. This rating system assigns points to an individual permittee based on an assessment of six characteristics of the permittee's discharge. The six characteristics or "rating criteria" are:

1) Toxic Pollutant Potential
2) Flow/Streamflow Volume
3) Conventional Pollutants
4) Public Health Impact
5) Water Quality Factors
6) Proximity to Near Coastal Waters

To rate an industrial permit, an NPDES Industrial Permit Rating Worksheet must be filled out. Attached is an example of a worksheet which is filled out by evaluating the current permit application, the permit itself, and other monitoring forms kept in the individual permit file. The sum of these weighted point values is the permit's ranking. The point totals range from zero to a maximum of 265.

To generate the major industrial permit lists for each NPDES State and EPA Region, the data for each permittee is loaded into an OWEC computer system. The numbered boxes on the worksheet correlate to specific point values programmed into the computer. The computer adds the points for each criteria for each permit and arranges each permit by State in descending numerical order.

Currently, a permit assigned a point total of 80 points or higher is designated a major permit. All permits below 80 points are designated minor permits. This is an artificial cutoff point but one which maintains the total number of majors at a level consistent with the total number of major permits originally designated major during the first round of per-

mitting. It also includes most permits which the NPDES permitting authorities collectively believe should be considered major dischargers.

In addition, each Region, in consultation with their NPDES States, is allowed to designate a certain number of their minor permits "discretionary" major permits. These are permits which the region or state believes should be accorded major status but for one reason or another did not achieve sufficient points to be rated a major permit. A "discretionary" is assigned an additional arbitrary 500 points to its raw score to give it major status and to flag it as a discretionary major permit. There are 576 discretionary majors at this time.

Also, if the facility is a steam electric power plant (SIC=4911) with a power output of 500 MW or greater (not using a cooling pond/lake), or that is a nuclear power plant, or that has a cooling water discharge greater than 25 percent of the receiving stream's 7Q10 flow rate, the facility is given a score of 600 automatically. Likewise, an automatic score of 700 is given to municipal separate storm sewers serving a population greater than 100,000.

Approximately 49,000 industrial permits have been rated. No secondary minor permits were rated because they would fail to qualify as major permits almost 100% of the time.

There are currently 3,803 major NPDES industrial permits. A Regional breakdown is as follows:

| | Majors* | |
|---|---|---|
| I | 339 | (9%) |
| II | 435 | (11%) |
| III | 429 | (11%) |
| IV | 762 | (20%) |
| V | 533 | (14%) |
| VI | 512 | (14%) |
| VII | 122 | (3%) |
| VIII | 179 | (5%) |
| IX | 138 | (4%) |
| X | 354 | (9%) |
| TOTAL | 3,803 | (100%) |

* "Majors" column shows permitees classified as majors. The revisions to the classification system took effect July 1991.

Of the 3,803 current major industrial permits, 2,731 are state-issued permits and 1,072 are EPA-issued permits.

# NPDES Permit Rating Work Sheet

- ☐ Regular Addition
- ☐ Discretionary Addition
- ☐ Score change, but no status change
- ☐ Deletion

NPDES No.: |__|__|__|__|__|__|__|__|__|

Facility Name:

|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

City: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

Receiving Water: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

Reach Number: |__|__|__|__|__|__|__|__|__|__|__|__|

***Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?***

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

☐ YES; score is 600 (stop here) ☐ NO (continue)

***Is this permit for a municipal separate storm sewer serving a population greater than 100,000?***

☐ YES; score is 700 (stop here)
☐ NO (continue)

## FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: |__|__|__|__| Primary SIC Code: |__|__|__|__|

Other SIC Codes: |__|__|__|__| |__|__|__|__| |__|__|__|__| |__|__|__|__|

Industrial Subcategory Code: |__|__|__| (Code 000 if no subcategory)

***Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)***

| Toxicity Group | Code | Points | Toxicity Group | Code | Points | Toxicity Group | Code | Points |
|---|---|---|---|---|---|---|---|---|
| ☐ No process waste streams | 0 | 0 | ☐ 3. | 3 | 15 | ☐ 7. | 7 | 35 |
| ☐ 1. | 1 | 5 | ☐ 4. | 4 | 20 | ☐ 8. | 8 | 40 |
| ☐ 2. | 2 | 10 | ☐ 5. | 5 | 25 | ☐ 9. | 9 | 45 |
| | | | ☐ 6. | 6 | 30 | ☐ 10. | 10 | 50 |

Code Number Checked: |__|__|

Total Points Factor 1: |__|__|

## FACTOR 2: Flow/Stream Flow Volume *(Complete either Section A or Section B; check only one)*

### Section A —Wastewater Flow Only Considered

| Wastewater Type (See Instructions) | | | Code | Points |
|---|---|---|---|---|
| Type I: | Flow < 5 MGD | ☐ | 11 | 0 |
| | Flow 5 to 10 MGD | ☐ | 12 | 10 |
| | Flow >10 to 50 MGD | ☐ | 13 | 20 |
| | Flow > 50 MGD | ☐ | 14 | 30 |
| Type II: | Flow <1 MGD | ☐ | 21 | 10 |
| | Flow 1 to 5 MGD | ☐ | 22 | 20 |
| | Flow >5 to 10 MGD | ☐ | 23 | 30 |
| | Flow >10 MGD | ☐ | 24 | 50 |
| Type III: | Flow <1 MGD | ☐ | 31 | 0 |
| | Flow 1 to 5 MGD | ☐ | 32 | 10 |
| | Flow >5 to 10 MGD | ☐ | 33 | 20 |
| | Flow >10 MGD | ☐ | 34 | 30 |

### Section B —Wastewater and Stream Flow Considered

| Wastewater Type (See Instructions) | Percent of Instream Wastewater Concentration at Receiving Stream Low Flow | | Code | Points |
|---|---|---|---|---|
| TYPE I/III: | < 10% | ☐ | 41 | 0 |
| | ≥ 10% to <50% | ☐ | 42 | 10 |
| | ≥ 50% | ☐ | 43 | 20 |
| Type II: | < 10% | ☐ | 51 | 0 |
| | ≥ 10% to <50% | ☐ | 52 | 20 |
| | ≥ 50% | ☐ | 53 | 30 |

Code Checked from Section A or B: |__|__|

Total Points Factor 2: |__|__|

# NPDES Permit Rating Work Sheet

## FACTOR 3: Conventional Pollutants
***(only when limited by the permit)***

NPDES No.: |__|__|__|__|__|__|__|__|__|__|

A. Oxygen Demanding Pollutant: (check one) ☐ BOD ☐ COD ☐ Other:_____

| | | | Code | Points |
|---|---|---|---|---|
| Permit Limits: (check one) | ☐ | <100 lbs/day | 1 | 0 |
| | ☐ | 100 to 1000 lbs/day | 2 | 5 |
| | ☐ | >1000 to 3000 lbs/day | 3 | 15 |
| | ☐ | >3000 lbs/day | 4 | 20 |

Code Checked: |__|

Points Scored: |__|__|

B. Total Suspended Solids (TSS)

| | | | Code | Points |
|---|---|---|---|---|
| Permit Limits: (check one) | ☐ | <100 lbs/day | 1 | 0 |
| | ☐ | 100 to 1000 lbs/day | 2 | 5 |
| | ☐ | >1000 to 5000 lbs/day | 3 | 15 |
| | ☐ | >5000 lbs/day | 4 | 20 |

Code Checked: |__|

Points Scored: |__|__|

C. Nitrogen Pollutant: (check one) ☐ Ammonia ☐ Other:_____

| | | *Nitrogen Equivalent* | *Code* | *Points* |
|---|---|---|---|---|
| Permit Limits: (check one) | ☐ | <300 lbs/day | 1 | 0 |
| | ☐ | 300 to 1000 lbs/day | 2 | 5 |
| | ☐ | >1000 to 3000 lbs/day | 3 | 15 |
| | ☐ | >3000 lbs/day | 4 | 20 |

Code Checked: |__|

Points Scored: |__|__|

Total Points Factor 3: |__|__|

## FACTOR 4: Public Health Impact

***Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.***

☐ YES (If yes, check toxicity potential number below)

☐ NO (If no, go to Factor 5)

**Determine the *human health* toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column — check one below)**

| Toxicity Group | Code | Points | Toxicity Group | Code | Points | Toxicity Group | Code | Points |
|---|---|---|---|---|---|---|---|---|
| ☐ No process waste streams | 0 | 0 | ☐ 3. | 3 | 0 | ☐ 7. | 7 | 15 |
| ☐ 1. | 1 | 0 | ☐ 4. | 4 | 0 | ☐ 8. | 8 | 20 |
| ☐ 2. | 2 | 0 | ☐ 5. | 5 | 5 | ☐ 9. | 9 | 25 |
| | | | ☐ 6. | 6 | 10 | ☐ 10. | 10 | 30 |

Code Number Checked: |__|__|

Total Points Factor 4: |__|__|

# NPDES Permit Rating Work Sheet

## FACTOR 5: Water Quality Factors

NPDES No.: |__|__|__|__|__|__|__|__|__|

**A.** ***Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?***

| | Code | Points |
|---|---|---|
| ❑ Yes | 1 | 10 |
| ❑ No | 2 | 0 |

**B.** ***Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?***

| | Code | Points |
|---|---|---|
| ❑ Yes | 1 | 0 |
| ❑ No | 2 | 5 |

**C.** ***Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?***

| | Code | Points |
|---|---|---|
| ❑ Yes | 1 | 10 |
| ❑ No | 2 | 0 |

Code Number Checked: A |__| B |__| C |__|

Points Factor 5: A |__|__| + B |__| + C |__| = |__|__| TOTAL

## FACTOR 6: Proximity to Near Coastal Waters

**A.** ***Base Score: Enter flow code here (from Factor 2):*** |__|__|

***Enter the multiplication factor that corresponds to the flow code:*** |__|__|

Check appropriate facility HPRI Code (from PCS):

| | *HPRI #* | *Code* | *HPRI Score* |
|---|---|---|---|
| ❑ | 1 | 1 | 20 |
| ❑ | 2 | 2 | 0 |
| ❑ | 3 | 3 | 30 |
| ❑ | 4 | 4 | 0 |
| ❑ | 5 | 5 | 20 |

HPRI code checked: |__|

| Flow Code | Multiplication Factor |
|---|---|
| 11, 31, or 41 | 0.00 |
| 12, 32, or 42 | 0.05 |
| 13, 33, or 43 | 0.10 |
| 14 or 34 | 0.15 |
| 21 or 51 | 0.10 |
| 22 or 52 | 0.30 |
| 23 or 53 | 0.60 |
| 24 | 1.00 |

Base Score: (HPRI Score) _____ x (Multiplication Factor) _____ = _____ (TOTAL POINTS)

**B.** ***Additional Points — NEP Program***
***For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?***

| | Code | Points |
|---|---|---|
| ❑ Yes | 1 | 10 |
| ❑ No | 2 | 0 |

**C.** ***Additional Points — Great Lakes Area of Concern***
***For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)***

| | Code | Points |
|---|---|---|
| ❑ Yes | 1 | 10 |
| ❑ No | 2 | 0 |

Code Number Checked: A |__| B |__| C |__|

Points Factor 6: A |__|__| + B |__|__| + C |__|__| = |_____| TOTAL

# *NPDES Permit Rating Work Sheet*

**: SUMMARY** NPDES No.: |__|__|__|__|__|__|__|__|__|

| Factor | Description | Total Points |
|---|---|---|
| 1 | Toxic Pollutant Potential | _____ |
| 2 | Flow/Streamflow Volume | _____ |
| 3 | Conventional Pollutants | _____ |
| 4 | Public Health Impacts | _____ |
| 5 | Water Quality Factors | _____ |
| 6 | Proximity to Near Coastal Waters | _____ |
| | TOTAL (Factors 1 through 6) | _____ |

S1. Is the total score equal to or greater than 80? ☐ Yes (Facility is a major) ☐ No

S2. If the answer to the above question is no, would you like this facility to be discretionary major?

☐ No

☐ Yes (Add 500 points to the above score and provide reason below:

Reason: _____

_____

_____

_____

_____

NEW SCORE: _____

OLD SCORE: _____

_____
Permit Reviewer's Name

(_____)_____-_____
Phone Number

_____
Date

# APPENDIX G

## Secondary NPDES Facilities with Toxic Discharge

This appendix provides a listing of NPDES facilities classified as secondary with a significant potential for toxics in their discharge.

## SECONDARY NPDES FACILITIES WITH SIGNIFICANT POTENTIAL FOR TOXICS

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| 0711 | Soil preparation services | 4 |
| 0721 | Crop planting and protection | 1 |
| 0729 | General crop services | 1 |
| 1081 | Metal mining services | 7 |
| 1389 | Oil and gas field services | 136 |
| 1475 | Phosphate rock | 33 |
| 2449 | Wood containers | 4 |
| 2492 | Particle board | 21 |
| 2511 | Wood household furniture, except uph. | 40 |
| 2512 | Wood household furniture, uph. | 13 |
| 2514 | Metal household furniture | 8 |
| 2517 | Wood, TV, radio, phonograph, and sewing machine cabinets | 1 |
| 2519 | Household furniture | 2 |
| 2521 | Wood office furniture | 7 |
| 2522 | Metal office furniture | 15 |
| 2531 | Public building and related furniture | 3 |
| 2541 | Wood partitions, shelving, and lockers | 5 |
| 2542 | Metal partitions, shelving, and lockers | 7 |
| 2789 | Book binding and related work | 1 |
| 2842 | Specialty cleaning, polishing, and sanitizing | 31 |
| 2843 | Surface active agents | 11 |
| 2844 | Perfumes, cosmetics, and other toiletry preparations | 28 |
| 2870 | Agricultural chemicals | 4 |
| 2873 | Nitrogenous fertilizers | 56 |
| 2874 | Phosphate fertilizers | 33 |
| 2992 | Lubricating oils and greases | 49 |
| 2999 | Products of petroleum - coal | 22 |
| 3229 | Pressed and blown glass, NEC | 65 |
| 3296 | Mineral wool | 19 |
| 3999 | Manufacturing industries, NEC | 79 |
| 4011 | Railroads and line-haul operations | 238 |
| 4013 | Railroads and switching terminal services | 83 |
| 4171 | Terminal and joint terminal maintenance facilities | 30 |
| 4172 | Bus service facilities | 81 |

**SECONDARY NPDES FACILITIES WITH SIGNIFICANT POTENTIAL FOR TOXICS (continued)**

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| 4212 | Local trucking without storage | 29 |
| 4231 | Trucking terminal facilities | 43 |
| 4463 | Marine cargo handling | 82 |
| 4469 | Water transportation | 91 |
| 4582 | Airport and flying fields | 68 |
| 4742 | Rental of railroad cars, including car cleaning | 5 |
| 4789 | Services incidental to transportation, NEC | 15 |
| 4953 | Refuse systems | 387 |
| 5161 | Chemicals and allied products - wholesale | 55 |
| 5171 | Petroleum bulk stations | 1,009 |
| 5172 | Petroleum products | 110 |
| 5541 | Gasoline service stations | 410 |
| 7261 | Funeral service and crematoriums | 3 |
| 7391 | Research and development laboratories | 104 |
| 7395 | Photo-finishing laboratories | 22 |
| 7538 | General auto repair shop | 47 |
| 7539 | Automotive repair shops | 10 |
| 7699 | Repair shops | 41 |
| 7819 | Services allied to motion pictures | 2 |
| 9711 | National security | 484 |
| | TOTAL | 4,155 |

Source: Permit Compliance System, December 1987.

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# APPENDIX H

## Secondary NPDES Facilities With Effluent Guidelines

This appendix provides a listing of NPDES facilities classified as secondary with effluent guidelines for conventional or nontoxic pollutants.

## SECONDARY NPDES FACILITIES WITH EFFLUENT GUIDELINES

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| 0211 | Beef cattle feedlots | 713 |
| 0213 | Hogs | 115 |
| 0214 | Sheep and goats | 12 |
| 0219 | General livestock | 3 |
| 0241 | Dairy farms | 88 |
| 0251 | Broiler, fryer, and roaster chickens | 7 |
| 0252 | Chicken eggs | 27 |
| 0253 | Turkey and turkey eggs | 10 |
| 0259 | Poultry and eggs | 30 |
| 0272 | Horses and other equines | 2 |
| 0291 | General farms | 4 |
| 1311 | Crude petroleum and natural gas | 3,749 |
| 1381 | Drilling oil and gas wells | 102 |
| 1382 | Oil and gas exploration services | 22 |
| 1411 | Dimension stone | 61 |
| 1422 | Crushed and broken limestone | 689 |
| 1423 | Crushed and broken granite | 64 |
| 1429 | Crushed and broken stone, NEC | 126 |
| 1442 | Construction sand and gravel | 499 |
| 1446 | Industrial sand | 45 |
| 1452 | Bentonite | 5 |
| 1453 | Fire clay | 31 |
| 1454 | Fuller earth | 7 |
| 1455 | Kaolin and ball clay | 83 |
| 1459 | Clay and related minerals, NEC | 24 |
| 1472 | Barite | 11 |
| 1473 | Fluorspar | 9 |
| 1474 | Potash, soda, and borate minerals | 3 |
| 1476 | Rock salt | 5 |
| 1477 | Sulfur | 7 |
| 1479 | Chemical and fertilizer mining, NEC | 3 |
| 1492 | Gypsum | 8 |
| 1496 | Talc, soapstone, and pyrophyllite | 10 |
| 1499 | Nonmetallic minerals, NEC | 63 |
| 2011 | Meat packing plants | 245 |
| 2013 | Sausages and other prepared meats | 53 |
| 2016 | Poultry dressing plants | 79 |
| 2017 | Poultry and egg processing | 22 |
| 2021 | Creamery butter | 35 |
| 2022 | Cheese, natural and processed | 131 |
| 2023 | Condensed and evaporated milk | 49 |
| 2024 | Ice cream and frozen desserts | 21 |
| 2026 | Fluid milk | 118 |

**SECONDARY NPDES FACILITIES WITH EFFLUENT GUIDELINES (continued)**

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| 2032 | Canned specialties | 29 |
| 2033 | Canned fruits and vegetables | 245 |
| 2034 | Dehydrated fruits, vegetables, soups | 9 |
| 2035 | Pickles, sauces, and salad dressing | 31 |
| 2037 | Frozen fruits and vegetables | 62 |
| 2038 | Frozen specialties | 17 |
| 2041 | Flour and other grain mill products | 14 |
| 2043 | Cereal breakfast foods | 10 |
| 2044 | Rice milling | 3 |
| 2046 | Wet corn milling | 22 |
| 2047 | Dog, cat, and other pet food | 26 |
| 2048 | Prepared feeds | 47 |
| 2061 | Raw cane sugar | 35 |
| 2062 | Cane sugar refining | 17 |
| 2063 | Beet sugar | 28 |
| 2077 | Animal and marine fats and oils | 56 |
| 2091 | Canned and cured seafood | 123 |
| 2092 | Fresh or frozen packaged fish | 479 |
| 2099 | Food preparations | 55 |
| 2591 | Drapery hardware and window blinds and shades | 1 |
| 2599 | Furniture and fixtures, NEC | 3 |
| 2875 | Fertilizers, mixing only | 7 |
| 3211 | Flat glass | 24 |
| 3221 | Glass containers | 54 |
| 3231 | Products of purchased glass | 30 |
| 3241 | Cement, hydraulic | 121 |
| 3273 | Ready-mix concrete | 136 |
| 3274 | Lime | 39 |
| 3281 | Cut stone and stone products | 86 |
| 3292 | Asbestos products | 16 |
| 3295 | Minerals, ground or treated | 72 |
| 5143 | Dairy products | 12 |
| 5422 | Freezer and locker meat provisioners | 0 |
| 5423 | Meat and fish (seafood) markets | 14 |
| 7534 | Tire retreading and repair shops | 4 |
| 8062 | General medical and surgical hospitals | 149 |
| 8063 | Psychiatric hospitals | 56 |
| 8069 | Specialty hospitals | 10 |
| 8922 | Noncommercial educational, scientific, and research organizations | 33 |
| | TOTAL | 9,565 |

Source: Permit Compliance System, December 1987.

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# APPENDIX I

## Secondary NPDES Facilities With Permit Limitations for Toxics

This appendix provides a listing of NPDES facilities classified as secondary with permit limitations for toxics including ammonia and chlorine.

## SECONDARY NPDES FACILITIES WITH PERMIT LIMITATIONS FOR TOXICS

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Agricultural Production - Crops* | | |
| 0116 | Soybeans | 3 |
| 0181 | Ornamental floriculture and nursery products | 6 |
| 0189 | Horticulture specialties, NEC | 1 |
| *Agricultural Production - Livestock* | | |
| 0279 | Animal specialties, NEC | 54 |
| *Agricultural Services* | | |
| 0742 | Veterinary services for animal specialties | 8 |
| 0752 | Animal specialty services | 3 |
| *Forestry* | | |
| 0821 | Forest nurseries and tree seed gathering and extracting | 3 |
| *Fishing, Hunting, and Trapping* | | |
| 0913 | Shellfish | 35 |
| 0921 | Fish hatcheries and preserves | 502 |
| *Oil and Gas Extraction* | | |
| 1321 | Natural gas liquids | 429 |
| *Building and Construction* | | |
| 1521 | General contractors - single family houses | 91 |
| 1522 | General contractors - residential buildings, other than single family | 20 |
| 1531 | Operative builders | 34 |
| 1541 | General contractors - industrial buildings and warehouses | 21 |
| 1542 | General contractors - nonresidential buildings | 32 |
| *Construction Other than Building Construction* | | |
| 1611 | Highway and street construction | 16 |
| 1622 | Bridge, tunnel, and elevated highway construction | 22 |
| 1623 | Water, sewer, pipe line, and communication and power line construction | 38 |
| 1629 | Heavy construction, NEC | 123 |

**SECONDARY NPDES FACILITIES**
**WITH PERMIT LIMITATIONS FOR TOXICS**
**(continued)**

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Construction Special Trade Contractors* | | |
| 1731 | Electrical work | 4 |
| 1781 | Water well drilling | 2 |
| 1799 | Special trade contractors, NEC | 49 |
| *Food and Kindred Products* | | |
| 2051 | Bread and other bakery products | 8 |
| 2052 | Cookies and crackers | 1 |
| 2065 | Candy and other confectionary products | 8 |
| 2067 | Chewing gum | 2 |
| 2075 | Soybean oil mills | 30 |
| 2076 | Vegetable oil mills, except corn, cottonseed, and soybean | 8 |
| 2079 | Shortening, table oils, margarine, and other fats and oils, NEC | 11 |
| 2082 | Malt beverages | 34 |
| 2083 | Malt | 10 |
| 2084 | Wines, brandy, and brandy spirits | 18 |
| 2085 | Distilled, rectified, and blended liquors | 38 |
| 2086 | Bottled and canned soft drinks and carbonated waters | 52 |
| 2087 | Flavoring extracts and flavoring syrups, NEC | 21 |
| 2090 | Miscellaneous food preparations | 7 |
| 2095 | Roasted coffee | 1 |
| 2097 | Manufactured ice | 26 |
| *Tobacco Manufacturers* | | |
| 2100 | Tobacco manufacturers | 1 |
| 2111 | Cigarettes | 8 |
| 2121 | Cigars | 3 |
| 2131 | Tobacco and snuff | 3 |
| *Lumber and Wood Products, Except Furniture* | | |
| 2451 | Mobile homes | 10 |
| *Stone, Clay, Glass, and Concrete Products* | | |
| 3251 | Brick and structural clay tile | 21 |
| 3253 | Ceramic wall and floor tile | 25 |
| 3255 | Clay refractories | 39 |
| 3262 | Vitreous china table and kitchen articles | 9 |
| 3264 | Porcelain electrical supplies | 11 |

**SECONDARY NPDES FACILITIES**
**WITH PERMIT LIMITATIONS FOR TOXICS**
**(continued)**

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Stone, Clay, Glass, and Concrete Products (continued)* | | |
| 3269 | Pottery products, NEC | 11 |
| 3271 | Concrete block and brick | 10 |
| 3272 | Concrete products, except block and brick | 56 |
| 3275 | Gypsum products | 24 |
| 3291 | Abrasive products | 16 |
| 3297 | Nonclay refractories | 21 |
| 3299 | Nonmetallic mineral products, NEC | 8 |
| *Railroad Transportation* | | |
| 4041 | Railway express services | 1 |
| *Local and Suburban Transit and Passenger Transportation* | | |
| 4111 | Local and suburban transit | 10 |
| 4119 | Local passenger transportation, NEC | 1 |
| 4131 | Intercity and rural highway passenger transportation | 2 |
| *Motor Freight Transportation and Warehousing* | | |
| 4213 | Trucking, except local | 18 |
| 4214 | Local trucking with storage | 11 |
| 4221 | Farm product warehousing and storage | 13 |
| 4222 | Refrigerated goods warehousing and storage | 40 |
| 4225 | General warehousing and storage | 41 |
| 4226 | Special warehousing and storage, NEC | 109 |
| *U.S. Postal Service* | | |
| 4311 | U.S. postal service | 6 |
| *Water Transportation* | | |
| 4411 | Deep sea foreign transportation | 2 |
| 4431 | Great Lakes - St. Lawrence Seaway transportation | 2 |
| *Transportation by Air* | | |
| 4511 | Air transportation, certificated carriers | 11 |
| 4521 | Air transportation, noncertificated carriers | 5 |
| 4583 | Airport terminal services | 8 |

**SECONDARY NPDES FACILITIES**
**WITH PERMIT LIMITATIONS FOR TOXICS**
(continued)

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Pipe Lines, Except Natural Gas* | | |
| 4612 | Crude petroleum pipe lines | 38 |
| 4613 | Refined petroleum pipe lines | 64 |
| 4619 | Pipe lines, NEC | 7 |
| *Transportation Services* | | |
| 4782 | Inspection and weighing services connected with transportation | 3 |
| 4783 | Packing and crating | 7 |
| 4784 | Fixed facilities for motor vehicle transportation, NEC | 86 |
| *Communication* | | |
| 4811 | Telephone communication, wire or radio | 25 |
| 4899 | Communication services, NEC | 6 |
| *Electric, Gas, and Sanitary Services* | | |
| 4922 | Natural gas transmission | 393 |
| 4923 | Natural gas transmission and distribution | 11 |
| 4925 | Gas production and/or distribution | 17 |
| 4939 | Combination utilities, NEC | 36 |
| 4941 | Water supply | 2,434 |
| 4959 | Sanitary services, NEC | 69 |
| 4961 | Steam supply | 67 |
| *Wholesale Trade - Durable Goods* | | |
| 5014 | Tires and tubes | 1 |
| 5051 | Metals service centers and offices | 19 |
| 5052 | Coal and other minerals - wholesale | 18 |
| 5063 | Electrical apparatus and equipment | 6 |
| 5065 | Electronic parts and equipment | 4 |
| 5081 | Commercial machines and equipment | 5 |
| 5082 | Construction and mining machinery and equipment | 17 |
| 5084 | Industrial machinery and equipment | 18 |
| 5092 | Miscellaneous durable goods | 26 |
| 5093 | Scrap and waste materials - wholesale | 35 |

## SECONDARY NPDES FACILITIES WITH PERMIT LIMITATIONS FOR TOXICS (continued)

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Wholesale Trade - Nondurable Goods* | | |
| 5111 | Printing and writing paper | 1 |
| 5113 | Industrial and personal service paper | 4 |
| 5141 | Groceries, general line | 9 |
| 5142 | Frozen foods | 8 |
| 5146 | Fish and seafood | 43 |
| 5147 | Meats and meat products | 10 |
| 5191 | Farm supplies | 10 |
| 5199 | Nondurable goods, NEC | 15 |
| *Building Materials, Hardware, Garden Supply, and Mobile Home Dealers* | | |
| 5251 | Hardware stores | 3 |
| *General Merchandise Stores* | | |
| 5311 | Department stores | 11 |
| 5331 | Variety stores | 7 |
| 5399 | Miscellaneous general merchandise stores | 7 |
| *Food Stores* | | |
| 5411 | Grocery stores | 52 |
| 5441 | Candy, nut, and confectionary stores | 3 |
| 5462 | Retail bakeries | 3 |
| *Automotive Dealers and Gasoline Service Stations* | | |
| 5511 | Motor vehicle dealers (new and used) | 33 |
| *Apparel and Accessory Stores* | | |
| 5611 | Men's and boys' clothing stores | 3 |
| *Furniture, Home Furnishings, and Equipment Stores* | | |
| 5719 | Miscellaneous home furnishings | 3 |
| *Eating and Drinking Places* | | |
| 5812 | Eating places | 302 |
| 5813 | Drinking places | 10 |

**SECONDARY NPDES FACILITIES**
**WITH PERMIT LIMITATIONS FOR TOXICS**
**(continued)**

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Miscellaneous Retail* | | |
| 5921 | Liquor stores | 6 |
| 5941 | Sporting goods stores and bicycle shops | 3 |
| 5946 | Camera and photographic supply stores | 1 |
| 5947 | Gift, novelty, and souvenir shops | 2 |
| 5999 | Miscellaneous retail stores, NEC | 7 |
| *Banking* | | |
| 6022 | State banks, members of FRS | 9 |
| 6023 | State banks, not members of FRS | 1 |
| 6025 | National banks, members of FRS | 7 |
| *Credit Agencies Other than Banks* | | |
| 6162 | Mortgage bankers and loan correspondents | 1 |
| *Insurance* | | |
| 6311 | Life insurance | 9 |
| 6324 | Hospital and medical service plans | 1 |
| 6371 | Pension, health, and welfare funds | 3 |
| *Insurance Agency, Brokers, and Service* | | |
| 6411 | Insurance agency, brokers, and service | 5 |
| *Real Estate* | | |
| 6512 | Operators of nonresidential buildings | 466 |
| 6513 | Operators of apartment buildings | 478 |
| 6514 | Operators of dwellings other than apartment buildings | 690 |
| 6515 | Operators of residential mobile home sites | 1,824 |
| 6517 | Lessors of railroad property | 2 |
| 6519 | Lessors of real property, NEC | 6 |
| 6531 | Real estate agents and managers | 37 |
| 6552 | Subdividers and developers, except cemeteries | 390 |
| *Holding and Other Investment Offices* | | |
| 6732 | Educational, religious, and charitable trusts | 2 |

**SECONDARY NPDES FACILITIES**
**WITH PERMIT LIMITATIONS FOR TOXICS**
(continued)

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Lodging Places* | | |
| 7011 | Hotels, motels, and tourist courts | 658 |
| 7021 | Rooming and boarding houses | 18 |
| 7030 | Camps and trailering parks | 2 |
| 7032 | Sporting and recreational camps | 351 |
| 7033 | Trailering parks and camp sites for transients | 398 |
| 7041 | Organization hotels and lodging houses | 48 |
| *Personal Services* | | |
| 7212 | Garment pressing and agents for laundries and dry cleaners | 3 |
| 7249 | Barber shops | 1 |
| 7299 | Miscellaneous personal services | 110 |
| *Business Services* | | |
| 7374 | Data processing services | 3 |
| 7392 | Management, consulting, and public relations services | 9 |
| 7397 | Commercial testing laboratories | 10 |
| 7399 | Business services, NEC | 91 |
| *Automotive Repair, Services, and Garages* | | |
| 7512 | Passenger car rental and leasing | 3 |
| 7513 | Truck rental and leasing | 8 |
| 7531 | Top and body repair shops | 2 |
| *Miscellaneous Repair Services* | | |
| 7629 | Electrical and electronic repair shops, NEC | 5 |
| *Motion Pictures* | | |
| 7833 | Drive-in motion picture theaters | 3 |
| *Amusement and Recreational Services, Except Motion Pictures* | | |
| 7932 | Billiard and pool establishments | 2 |
| 7933 | Bowling alleys | 11 |
| 7941 | Professional sports clubs and promoters | 3 |
| 7948 | Racing, including track operations | 16 |

**SECONDARY NPDES FACILITIES**
**WITH PERMIT LIMITATIONS FOR TOXICS**
**(continued)**

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Amusement and Recreational Services, Except Motion Pictures (continued)* | | |
| 7992 | Public golf courses | 7 |
| 7996 | Amusement parks | 17 |
| 7997 | Membership sports and recreation clubs | 183 |
| 7999 | Amusement and recreation services, NEC (including swimming pools) | 554 |
| *Health Services* | | |
| 8011 | Offices of physicians | 10 |
| 8051 | Skilled nursing care facilities | 167 |
| 8059 | Nursing and personal care facilities, NEC | 80 |
| 8071 | Medical laboratories | 13 |
| 8081 | Outpatient care facilities | 21 |
| *Education Services* | | |
| 8211 | Elementary and secondary schools | 2,727 |
| 8221 | Colleges, universities, and professional schools | 136 |
| 8222 | Junior colleges and technical institutes | 35 |
| 8231 | Libraries and information centers | 5 |
| 8241 | Correspondence schools | 2 |
| 8244 | Business and secretarial schools | 1 |
| 8249 | Vocational schools, NEC | 32 |
| 8299 | Schools and education services, NEC | 27 |
| *Social Services* | | |
| 8321 | Individual and family social services | 23 |
| 8331 | Job training and vocational rehabilitation services | 9 |
| 8351 | Child day-care services | 28 |
| 8361 | Residential care | 137 |
| 8399 | Social services, NEC | 6 |
| *Museums, Art Galleries, Botanical, and Zoological Gardens* | | |
| 8411 | Museum and art galleries | 12 |
| 8421 | Arboreta, botanical, and zoological gardens | 12 |

**SECONDARY NPDES FACILITIES**
**WITH PERMIT LIMITATIONS FOR TOXICS**
**(continued)**

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Membership Organizations* | | |
| 8641 | Civic, social, and fraternal associations | 33 |
| 8661 | Religious organizations | 159 |
| 8699 | Membership organizations, NEC | 5 |
| *Private Households* | | |
| 8811 | Private households | 221 |
| *Miscellaneous Services* | | |
| 8911 | Engineering, architectural, and surveying services | 15 |
| 8999 | Services, NEC | 18 |
| *Executive, Legislative, and General Government, Except Finance* | | |
| 9111 | Executive services | 13 |
| 9121 | Legislative bodies | 3 |
| 9199 | General government, NEC | 18 |
| *Justice, Public Order, and Safety* | | |
| 9221 | Police protection | 7 |
| 9222 | Legal counsel and prosecution | 1 |
| 9223 | Correctional institutions | 217 |
| 9224 | Fire protection | 17 |
| *Administration of Human Resources Programs* | | |
| 9451 | Administration of veteran's affairs, except health and insurance | 1 |
| *Administration of Environmental Quality and Housing Programs* | | |
| 9511 | Air and water resource and solid waste management | 58 |
| 9512 | Land, mineral, wildlife, and forest conservation | 181 |
| 9531 | Administration of housing programs | 29 |

## SECONDARY NPDES FACILITIES WITH PERMIT LIMITATIONS FOR TOXICS (continued)

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Administration of Economic Programs* | | |
| 9611 | Administration of general economic programs | 4 |
| 9621 | Regulation and administration of transportation programs | 114 |
| 9641 | Regulation of agricultural marketing and commodities | 2 |
| 9661 | Space research and technology | 4 |
| | TOTAL | 17,345 |

Source: Permit Compliance System, December 1987.

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# APPENDIX J

## Secondary NPDES Facilities
## Potential *De Minimis*

This appendix provides a listing of NPDES facilities (secondary) classified as potential *de minimis*.

## SECONDARY NPDES FACILITIES
## POTENTIAL *DE MINIMIS*

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Agricultural Production - Crops* | | |
| 0112 | Rice | 1 |
| 0115 | Corn | 1 |
| 0119 | Cash grains, NEC | 3 |
| 0131 | Cotton | 1 |
| 0132 | Tobacco | 1 |
| 0133 | Sugar crops | 2 |
| 0134 | Irish potatoes | 1 |
| 0161 | Vegetables and melons | 4 |
| 0171 | Berry crops | 3 |
| 0175 | Deciduous tree fruits | 1 |
| 0179 | Fruit and tree nuts, NEC | 1 |
| 0182 | Food crops grown under cover | 6 |
| 0191 | General farms, primarily crop | 10 |
| *Agricultural Production - Livestock* | | |
| 0212 | Beef cattle, except feedlots | 37 |
| 0254 | Poultry hatcheries | 21 |
| 0271 | Fur-bearing animals and rabbits | 1 |
| *Agricultural Services* | | |
| 0723 | Crop preparation services for market, except cotton ginning | 135 |
| 0751 | Livestock services | 9 |
| 0762 | Farm management services | 3 |
| 0781 | Landscape counseling and planning | 1 |
| *Forestry* | | |
| 0849 | Gathering of forest products, NEC | 2 |
| 0851 | Forestry services | 5 |
| *Fishing, Hunting, and Trapping* | | |
| 0912 | Finfish | 9 |
| 0919 | Miscellaneous marine products | 2 |
| 0971 | Hunting and trapping, and game propagation | 3 |
| *Mining of Nonmetallic Minerals* | | |
| 1481 | Nonmetallic minerals (except fuels) services | 7 |

## SECONDARY NPDES FACILITIES
## POTENTIAL *DE MINIMIS*

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Construction Special Trade Contractors* | | |
| 1711 | Plumbing, heating (except electric), and air conditioning | 4 |
| 1721 | Painting, paper hanging, and decorating | 2 |
| 1741 | Masonry, stone setting, and other stonework | 1 |
| 1752 | Floor laying and other floorwork, NEC | 2 |
| 1771 | Concrete work | 3 |
| 1791 | Structural steel erection | 3 |
| 1794 | Excavating and foundation work | 5 |
| 1796 | Installation or erection of building equipment, NEC | 2 |
| *Food and Kindred Products* | | |
| 2045 | Blended and prepared flour | 1 |
| 2066 | Chocolate and cocoa products | 2 |
| 2069 | Sugar and confectionary products | 1 |
| 2071 | Fats and oils | 1 |
| 2074 | Cottonseed oil mills | 15 |
| 2080 | Beverage | 1 |
| 2098 | Macaroni, spaghetti, vermicelli, and noodles | 2 |
| *Tobacco Manufacturers* | | |
| 2141 | Tobacco stemming and redrying | 6 |
| *Lumber and Wood Products, Except Furniture* | | |
| 2448 | Wood pallets and skids | 1 |
| 2452 | Prefabricated wood buildings and components | 1 |
| *Furniture and Fixtures* | | |
| 2515 | Mattresses and bedsprings | 3 |
| *Stone, Clay, Glass, and Concrete Products* | | |
| 3259 | Structural clay products, NEC | 5 |
| 3261 | Vitreous china plumbing fixtures | 5 |
| 3263 | Fire earthenware table and kitchen articles | 2 |

**SECONDARY NPDES FACILITIES**
**POTENTIAL *DE MINIMIS***

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Local and Suburban Transit and Passenger Transportation* | | |
| 4142 | Passenger transportation charter service, except local | 1 |
| 4151 | School buses | 4 |
| *Motor Freight Transportation and Warehousing* | | |
| 4224 | Household goods warehousing and storage | 2 |
| *Water Transportation* | | |
| 4421 | Transportation to and between noncontiguous territories | 1 |
| 4441 | Transportation on rivers and canals | 4 |
| 4452 | Ferries | 3 |
| 4453 | Lighterage | 2 |
| 4454 | Towing and tugboat service | 2 |
| 4459 | Local water transportation, NEC | 1 |
| 4462 | Water transportation services | 1 |
| 4464 | Canal operation | 5 |
| *Transportation Services* | | |
| 4712 | Freight forwarding | 1 |
| 4722 | Arrangement of passenger transportation | 2 |
| 4723 | Arrangement of transportation of freight and cargo | 2 |
| *Communication* | | |
| 4832 | Radio broadcasting | 1 |
| 4833 | Television broadcasting | 2 |
| 4841 | Cable and other pay television services | 1 |
| *Electric, Gas, and Sanitary Services* | | |
| 4924 | Natural gas distribution | 6 |
| 4932 | Gas and other services combined | 8 |
| 4971 | Irrigation systems | 51 |

## SECONDARY NPDES FACILITIES
## POTENTIAL *DE MINIMIS*

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Wholesale Trade - Durable Goods* | | |
| 5012 | Automobiles and other motor vehicles | 4 |
| 5013 | Automotive parts and supplies | 4 |
| 5023 | Home furnishings | 1 |
| 5031 | Lumber, plywood, and millwork | 1 |
| 5039 | Construction materials, NEC | 59 |
| 5041 | Sporting and recreational goods and supplies | 1 |
| 5074 | Plumbing and heating equipment and supplies | 3 |
| 5078 | Refrigeration equipment and supplies | 3 |
| 5083 | Farm and garden machinery and equipment | 7 |
| 5085 | Industrial supplies | 7 |
| 5086 | Professional equipment and supplies | 1 |
| 5087 | Service establishment equipment and supplies | 4 |
| 5088 | Transportation equipment and supplies | 1 |
| 5099 | Durable goods, NEC | 4 |
| *Wholesale Trade - Nondurable Goods* | | |
| 5112 | Stationery supplies | 3 |
| 5122 | Drugs, drug proprietaries, and druggist sundries | 2 |
| 5134 | Notions and other dry goods | 1 |
| 5144 | Poultry and poultry products | 3 |
| 5148 | Fresh fruits and vegetables | 10 |
| 5149 | Groceries and related products, NEC | 21 |
| 5153 | Grain | 13 |
| 5154 | Livestock | 34 |
| 5159 | Farm product raw materials, NEC | 3 |
| 5181 | Beer and ale | 1 |
| 5182 | Wines and distilled alcoholic beverages | 2 |
| 5198 | Paints, varnishes, and supplies | 1 |
| *Building Materials, Hardware, Garden Supply, and Mobile Home Dealers* | | |
| 5211 | Lumber and other building materials dealers | 29 |
| 5231 | Paint, glass, and wallpaper stores | 1 |
| 5261 | Retail nurseries, lawn, and garden supply stores | 2 |
| 5271 | Mobile home dealers | 13 |
| *Food Stores* | | |
| 5431 | Fruit stores and vegetable markets | 1 |
| 5451 | Dairy products stores | 3 |
| 5499 | Miscellaneous food stores | 5 |

## SECONDARY NPDES FACILITIES
## POTENTIAL *DE MINIMIS*

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Automotive Dealers and Gasoline Service Stations* | | |
| 5521 | Motor vehicle dealers (used only) | 1 |
| 5531 | Auto and home supply stores | 2 |
| 5551 | Boat dealers | 2 |
| 5571 | Motorcycle dealers | 1 |
| *Apparel and Accessory Stores* | | |
| 5651 | Family clothing stores | 2 |
| 5661 | Shoe stores | 1 |
| *Furniture, Home Furnishings, and Equipment Stores* | | |
| 5712 | Furniture stores | 4 |
| *Miscellaneous Retail* | | |
| 5912 | Drug stores and proprietary stores | 2 |
| 5931 | Used merchandise stores | 6 |
| 5944 | Jewelry stores | 1 |
| 5961 | Mail order houses | 1 |
| 5963 | Direct selling establishments | 2 |
| 5982 | Fuel and ice dealers | 16 |
| 5983 | Fuel oil dealers | 20 |
| 5984 | Liquified petroleum gas dealers | 2 |
| 5992 | Florists | 1 |
| *Banking* | | |
| 6011 | Federal reserve banks | 1 |
| 6026 | National banks, not members of FRS | 1 |
| 6032 | Mutual savings banks, members of FRS | 1 |
| 6044 | State nondeposit trust companies | 1 |
| 6059 | Related banking functions, NEC | 1 |
| *Credit Agencies Other than Banks* | | |
| 6122 | Federal savings and loan associations | 3 |
| 6123 | State savings and loan associations | 3 |
| 6159 | Miscellaneous business credit institutions | 4 |

**SECONDARY NPDES FACILITIES**
**POTENTIAL *DE MINIMIS***

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Security and Commodity Brokers and Services* | | |
| 6211 | Security brokers, dealers, and flotation companies | 6 |
| *Insurance* | | |
| 6321 | Accident and health insurance | 2 |
| 6331 | Fire, marine, and casualty insurance | 3 |
| 6361 | Title insurance | 1 |
| *Real Estate* | | |
| 6553 | Cemetery subdividers and developers | 1 |
| *Combinations of Real Estate, Insurance, Loans, and Law Offices* | | |
| 6611 | Combinations of real estate, insurance, loans, and law offices | 1 |
| *Holding and Other Investment Offices* | | |
| 6711 | Holding offices | 2 |
| *Personal Services* | | |
| 7231 | Beauty shops | 1 |
| *Business Services* | | |
| 7333 | Commercial photography, art, and graphics | 1 |
| 7349 | Cleaning and maintenance services, NEC | 1 |
| 7372 | Computer programming and other software services | 1 |
| 7379 | Computer-related services, NEC | 1 |
| 7394 | Equipment rental and leasing services | 14 |
| *Automotive Repair, Services, and Garages* | | |
| 7519 | Utility trailer and recreational vehicle rental | 14 |
| 7523 | Parking lots | 2 |
| 7525 | Parking structures | 4 |
| 7549 | Automotive services, except repair and car washes | 9 |

**SECONDARY NPDES FACILITIES**
**POTENTIAL *DE MINIMIS***

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Miscellaneous Repair Services* | | |
| 7623 | Refrigeration and air conditioning service and repair shops | 1 |
| 7692 | Welding repair | 5 |
| 7694 | Armature rewinding shops | 2 |
| *Motion Pictures* | | |
| 7814 | Motion picture and tape production for television | 3 |
| 7832 | Motion picture theaters, except drive-ins | 1 |
| *Amusement and Recreation Services, Except Motion Pictures* | | |
| 7911 | Dance halls, studios, and schools | 3 |
| 7922 | Theatrical producers and miscellaneous services | 1 |
| 7929 | Entertainers and entertainment groups | 2 |
| *Health Services* | | |
| 8021 | Offices of dentists | 2 |
| 8049 | Offices of health practitioners, NEC | 1 |
| 8091 | Health and allied services, NEC | 8 |
| *Legal Services* | | |
| 8111 | Legal services | 1 |
| *Education Services* | | |
| 8243 | Data processing schools | 1 |
| *Membership Organizations* | | |
| 8611 | Business associations | 2 |
| 8621 | Professional membership organizations | 2 |
| *Justice, Public Order, and Safety* | | |
| 9211 | Courts | 6 |
| 9229 | Public order and safety, NEC | 3 |

**SECONDARY NPDES FACILITIES**
**POTENTIAL *DE MINIMIS***

| SIC Code | Industrial Category | No. of Facilities |
|---|---|---|
| *Administration of Human Resources Programs* | | |
| 9411 | Administration of educational programs | 1 |
| 9431 | Administration of public health programs | 7 |
| 9441 | Administration of social, manpower, and income maintenance programs | 2 |
| *Administration of Environmental Quality and Housing Programs* | | |
| 9532 | Administration of urban planning and rural development | 4 |
| *Administration of Economic Programs* | | |
| 9631 | Regulation and administration of utilities | 4 |
| 9651 | Regulation, licensing, and inspection of miscellaneous commercial sectors | 2 |
| | TOTAL | 893 |

Source: Permit Compliance System, December 1987.

# APPENDIX K

## State NPDES Program Status

This appendix provides a summary of the States approved to issue permits under the standard NPDES program.

## STATE NPDES PROGRAM STATUS

9/30/91

| | Approved State NPDES permit program | Approved to regulate Federal facilities | Approved State pretreatment program | Approved general permits program |
|---|---|---|---|---|
| Alabama | 10/19/79 | 10/19/79 | 10/19/79 | 06/26/91 |
| Arkansas | 11/01/86 | 11/01/86 | 11/01/86 | 11/01/86 |
| California | 05/14/73 | 05/05/78 | 09/22/89 | 09/22/89 |
| Colorado | 03/27/75 | – | – | 03/04/83 |
| Connecticut | 09/26/73 | 01/09/89 | 06/03/81 | – |
| Delaware | 04/01/74 | – | – | – |
| Georgia | 06/28/74 | 12/08/80 | 03/12/81 | 01/28/91 |
| Hawaii | 11/28/74 | 06/01/79 | 08/12/83 | 09/30/91 |
| Illinois | 10/23/77 | 09/20/79 | – | 01/04/84 |
| Indiana | 01/01/75 | 12/09/78 | – | 04/02/91 |
| Iowa | 08/10/78 | 08/10/78 | 06/03/81 | – |
| Kansas | 06/28/74 | 08/28/85 | – | – |
| Kentucky | 09/30/83 | 09/30/83 | 09/30/83 | 09/30/83 |
| Maryland | 09/05/74 | 11/10/87 | 09/30/85 | 09/30/91 |
| Michigan | 10/17/73 | 12/09/78 | 06/07/83 | – |
| Minnesota | 06/30/74 | 12/09/78 | 07/16/79 | 12/15/87 |
| Mississippi | 05/01/74 | 01/28/83 | 05/13/82 | 09/27/91 |
| Missouri | 10/30/74 | 06/26/79 | 06/03/81 | 12/12/85 |
| Montana | 06/10/74 | 06/23/81 | – | 04/29/83 |
| Nebraska | 06/12/74 | 11/02/79 | 09/07/84 | 07/20/89 |
| Nevada | 09/19/75 | 08/31/78 | – | – |
| New Jersey | 04/13/82 | 04/13/82 | 04/13/82 | 04/13/82 |
| New York | 10/28/75 | 06/13/80 | – | – |
| North Carolina | 10/19/75 | 09/28/84 | 06/14/82 | 09/06/91 |
| North Dakota | 06/13/75 | 01/22/90 | – | 01/22/90 |
| Ohio | 03/11/74 | 01/28/83 | 07/27/83 | – |
| Oregon | 09/26/73 | 03/02/79 | 03/12/81 | 02/23/82 |
| Pennsylvania | 06/30/78 | 06/30/78 | – | 08/02/91 |
| Rhode Island | 09/17/84 | 09/17/84 | 09/17/84 | 09/17/84 |
| South Carolina | 06/10/75 | 09/26/80 | 04/09/82 | – |
| Tennessee | 12/28/77 | 09/30/86 | 08/10/83 | 04/18/91 |
| Utah | 07/07/87 | 07/07/87 | 07/07/87 | 07/07/87 |
| Vermont | 03/11/74 | – | 03/16/82 | – |
| Virgin Islands | 06/30/76 | – | – | – |
| Virginia | 03/31/75 | 02/09/82 | 04/14/89 | 05/20/91 |
| Washington | 11/14/73 | – | 09/30/86 | 09/26/89 |
| West Virginia | 05/10/82 | 05/10/82 | 05/10/82 | 05/10/82 |
| Wisconsin | 02/04/74 | 11/26/79 | 12/24/80 | 12/19/86 |
| Wyoming | 01/30/75 | 05/18/81 | – | 09/24/91 |
| TOTALS | 39 | 34 | 27 | 28 |

Number of Fully Authorized Programs (Federal Facilities, Pretreatment, General Permits) = 20

# APPENDIX L

## General Permit Information

State General Permit Program Status . . . . . L-1
Existing General Permit Classification Categories . . . . . L-3

This appendix provides a summary of State NPDES and general permit authority with the number of general permits and discharges under general permits, as well as a listing of categories currently covered by general permits.

| State General Permit Program Status | | | |
|---|---|---|---|
| | Discharges Covered Under General Permits | Number of General Permits EPA | STATE |
| NPDES APPROVED STATES | | | |
| *Alabama | | | |
| *Arkansas | | | |
| *California | | | |
| *Colorado | 236 | | 3 |
| *Georgia | | | |
| *Hawaii | | | |
| *Illinois | | | |
| *Indiana | | | |
| *Kentucky | 3,142 (includes 3,100 coal mines) | | 2 |
| *Maryland | | | |
| *Minnesota | | | |
| *Mississippi | | | |
| *Missouri | 16 | | 4 |
| *Montana | 99 | | 5 |
| *Nebraska | | | |
| *New Jersey | Unknown | | |
| *North Carolina | | | |
| *North Dakota | | | |
| *Oregon | 1,024 | | 12 |
| *Pennsylvania | | | |
| *Rhode Island | | | |
| *Tennessee | | | |
| *Utah | 18 | 2 | |
| *Virginia | | | |
| *Washington | | | |
| *West Virginia | | | |
| *Wisconsin | 820 | | 8 |
| *Wyoming | | | |
| SUBTOTAL | 5,355 | 2 | 36 |
| Connecticut | | | |
| Delaware | | | |
| Iowa | | | |
| Kansas | | | |
| Michigan | | | |
| Nevada | | | |
| New York | | | |
| Ohio | | | |
| South Carolina | | | |
| Vermont | | | |
| Virgin Islands | | | |
| *States with General Permit Authority | | | |

| State General Permit Status (continued) | | | |
|---|---|---|---|
| | Discharges Covered Under General Permits | Number of General Permits EPA | STATE |
| NON-NPDES STATES | 227 | 1 | |
| Alaska | | | |
| American Samoa | | 1 | |
| Arizona | 20 | | |
| Florida | 3 | | |
| Guam | | | |
| Idaho | 42 | 1 | |
| Louisiana | <630** | 2 | |
| Maine | <80** | 1 | |
| Massachusetts | <80** | 1 | |
| New Hampshire | <80** | 1 | |
| New Mexico | | | |
| Oklahoma | <500** | 1 | |
| Puerto Rico | 45 | 1 | |
| South Dakota | 3 | 2 | |
| Texas | <500** | 1 | |
| Washington, D.C. | | | |

**Given on a combined regional basis.

Average number of discharges covered under a general permit (excluding coal mines) = 3,302/50 = 66

SOURCES: EPA Regional Survey, 1988; EPA Headquarters, 1991.

## EXISTING GENERAL PERMIT CLASSIFICATION CATEGORIES

Agricultural Production Livestock
Aquifer Restoration
Coal Mining
Concrete Products
Construction
Deep Seabed Mining
Fish Hatcheries and Preserves
Hydrostatic Testing
Laundry/Cleaning/Garment Services
LOG Transfer
Meat Products
Mine Dewatering
Noncontact Cooling Waters
Offshore Oil & Gas
Oil & Gas Extraction
Petroleum Bulk Stations
Placer Mining
Private Households
Processed Fruit & Vegetables
Salt Extraction
Sand & Gravel
Seafood Processing
Sewage Systems
Stormwater Runoff
Swimming Pool Filter Backwash
Water Supply

Sources: EPA Regional and State Permitting Authorities, 1988
Permit Compliance System, December 1987

## APPENDIX M

**North Carolina's Department of Natural Resources and Community Development Effort and Cost of Permitting Study, April 1986**

This appendix includes the North Carolina Case Study that outlines the effort and cost of permitting steps involved in a "minimum reputable standard/model permitting program," including a methodology of analysis.

ESTIMATED PERMITTING EFFORT
(PERSON-HOURS PER PERMIT OF 5-YEAR DURATION)

| ACTION | EFF GRADE | COST /HR | MAJOR MUNICIPAL >10% IND | MAJOR MUNICIPAL <10% IND | MINOR MUNICIPAL >10% IND | MINOR MUNICIPAL <10% IND | MAJOR INDUSTRIAL | MINOR INDUSTRIAL | SINGLE FAMILY | STORMWATER | COOLING WATER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Preapplication conference | 71 | 15.15 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |
| Application administration | 57 | 8.29 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Initial engineering review | 74 | 17.34 | 9.4 | 9.4 | 9.4 | 9.4 | 25.1 | 9.4 | 1.6 | 9.4 | 1.2 |
| Biocide review | 72 | 15.88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 |
| Pretreatment program | 72 | 15.88 | 118.5 | 118.5 | 118.5 | 118.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Staff report | 71 | 15.15 | 31.4 | 23.6 | 23.6 | 23.6 | 25.1 | 12.6 | 12.6 | 23.6 | 23.6 |
| WLA level B | 71 | 15.15 | 4.7 | 4.7 | 4.7 | 4.7 | 6.3 | 6.3 | 0.0 | 0.0 | 4.7 |
| WLA level C - modeling | 73 | 16.67 | 241.8 | 241.8 | 241.8 | 241.8 | 241.8 | 241.8 | 0.0 | 0.0 | 241.8 |
| WLA level C - field work | 67 | 12.70 | 604.5 | 604.5 | 604.5 | 604.5 | 604.5 | 604.5 | 0.0 | 0.0 | 604.5 |
| WLA level C/add reaeration | 67 | 12.70 | 302.3 | 302.3 | 302.3 | 302.3 | 302.3 | 302.3 | 0.0 | 0.0 | 0.0 |
| WLA level C renewal review | 73 | 16.67 | 38.7 | 38.7 | 38.7 | 38.7 | 38.7 | 38.7 | 0.0 | 0.0 | 0.0 |
| Review monitoring databases | 69 | 13.84 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Data entry | 57 | 8.29 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Final engr rev/draft permit | 72 | 15.88 | 4.8 | 4.8 | 2.4 | 2.4 | 7.3 | 3.6 | 1.2 | 9.7 | 1.2 |
| Public notice | 57 | 8.29 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.0 | 0.6 | 0.6 |
| Hearing | 75 | 18.24 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 |
| Reclass / use attainability | 71 | 15.15 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 |
| Permit issuance | 65 | 11.62 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Records/data management | 57 | 8.29 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 1.5 | 1.5 | 4.4 |
| CEI | 69 | 13.84 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 12.1 | 0.0 | 0.0 | 9.7 |
| CSI | 69 | 13.84 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 24.2 | 0.0 | 10.9 | 19.3 |
| CSI biomonitoring | 70 | 14.50 | 38.7 | 38.7 | 37.5 | 37.5 | 38.7 | 36.9 | 0.0 | 0.0 | 19.3 |
| O&M | 69 | 13.84 | 19.3 | 19.3 | 16.9 | 16.9 | 19.3 | 16.9 | 6.0 | 0.0 | 6.0 |
| 5-yr composite inspections | 69 | 13.65 | 112.2 | 112.2 | 109.4 | 109.4 | 112.2 | 99.9 | 3.3 | 14.0 | 62.8 |
| Annual nondischarge insp(5) | 69 | 13.65 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Intensive toxicity eval | 67 | 12.70 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 0.0 | 0.0 | 0.0 |
| Self-monitoring data rev | 72 | 15.88 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Renewal notice | 65 | 11.62 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Supervision | 76 | 19.12 | 30.2 | 30.2 | 30.2 | 30.2 | 30.2 | 30.2 | 6.0 | 6.0 | 6.0 |
| Authorization to construct | 72 | 15.88 | 32.9 | 32.9 | 32.9 | 32.9 | 32.9 | 32.9 | 0.0 | 0.0 | 33.2 |
| Tax certification | 71 | 15.15 | 9.7 | 9.7 | 9.7 | 9.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| TOTAL STAFF TIME-BASIC | | | 252.9 | 245.0 | 239.8 | 239.8 | 256.6 | 212.4 | 36.2 | 74.9 | 157.3 |
| ADDITIONAL STAFF TIME-LEVEL C | | | 1148.6 | 1148.6 | 1148.6 | 1148.6 | 1148.6 | 1148.6 | 0.0 | 0.0 | 846.3 |
| ADDITIONAL STAFF TIME-HEARING | | | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 | 54.4 |
| ADDITIONAL STAFF TIME-RECLASSIFICATION | | | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 | 205.5 |
| ADDITIONAL STAFF TIME-PRETREATMENT | | | 118.5 | 118.5 | 118.5 | 118.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| MAXIMUM TOTAL STAFF TIME | | | 1779.8 | 1772.0 | 1766.8 | 1766.8 | 1665.1 | 1620.9 | 296.2 | 334.8 | 1263.5 |

Note: Chemical laboratory costs and effort are not included in this table.
Effort values adjusted for "typical" application quality and leave days.

ESTIMATED PERMITTING COSTS
(PER PERMIT OF 5-YEAR DURATION)

| ACTION | EFF GRADE | COST /HR | MAJOR MUNICIPAL >10% IND | MAJOR MUNICIPAL <10% IND | MINOR MUNICIPAL >10% IND | MINOR MUNICIPAL <10% IND | MAJOR INDUSTRIAL | MINOR INDUSTRIAL | SINGLE FAMILY | STORMWATER | COOLING WATER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Preapplication conference | 71 | 15.15 | 71.43 | 71.43 | 71.43 | 71.43 | 71.43 | 71.43 | 71.43 | 71.43 | 71.43 |
| Application administration | 57 | 8.29 | 19.54 | 19.54 | 19.54 | 19.54 | 19.54 | 19.54 | 19.54 | 19.54 | 19.54 |
| Initial engineering review | 72 | 15.88 | 149.75 | 149.75 | 149.75 | 149.75 | 399.34 | 149.75 | 24.96 | 149.75 | 19.20 |
| Biocide review | 72 | 15.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 149.75 |
| Pretreatment program | 72 | 15.88 | 1881.49 | 1881.49 | 1881.49 | 1881.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Staff report | 71 | 15.15 | 476.23 | 357.17 | 357.17 | 357.17 | 380.98 | 190.49 | 190.49 | 357.17 | 357.17 |
| WLA level B | 71 | 15.15 | 71.43 | 71.43 | 71.43 | 71.43 | 95.25 | 95.25 | 0.00 | 0.00 | 71.43 |
| WLA level C - modeling | 73 | 16.67 | 4030.81 | 4030.81 | 4030.81 | 4030.81 | 4030.81 | 4030.81 | 0.00 | 0.00 | 4030.81 |
| WLA level C - field work | 67 | 12.70 | 15527.15 | 15527.15 | 15527.15 | 15527.15 | 15527.15 | 15527.15 | 0.00 | 0.00 | 15527.15 |
| WLA level C/add reaeration | 67 | 12.70 | 3838.58 | 3838.58 | 3838.58 | 3838.58 | 3838.58 | 3838.58 | 0.00 | 0.00 | 0.00 |
| WLA level C renewal review | 73 | 16.67 | 644.93 | 644.93 | 644.93 | 644.93 | 644.93 | 644.93 | 0.00 | 0.00 | 0.00 |
| Review monitoring databases | 69 | 13.84 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 |
| Data entry | 57 | 8.29 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 |
| Final engr rev/draft permit | 72 | 15.88 | 76.80 | 76.80 | 38.40 | 38.40 | 115.19 | 57.60 | 19.20 | 153.59 | 19.20 |
| Public notice | 57 | 8.29 | 39.01 | 39.01 | 39.01 | 39.01 | 39.01 | 39.01 | 0.00 | 39.01 | 39.01 |
| Hearing | 75 | 18.24 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 |
| Reclass / use attainability | 71 | 15.15 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 |
| Permit issuance | 65 | 11.62 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 |
| Records/data management | 57 | 8.29 | 36.08 | 36.08 | 36.08 | 36.08 | 36.08 | 36.08 | 12.03 | 12.03 | 36.08 |
| CEI | 69 | 13.84 | 200.79 | 200.79 | 200.79 | 200.79 | 200.79 | 167.33 | 0.00 | 0.00 | 133.86 |
| CSI | 69 | 13.84 | 749.58 | 749.58 | 749.58 | 749.58 | 749.58 | 682.65 | 0.00 | 498.59 | 615.72 |
| CSI biomonitoring | 68 | 13.27 | 513.39 | 513.39 | 497.35 | 497.35 | 513.39 | 489.32 | 0.00 | 0.00 | 256.69 |
| O&M | 69 | 13.84 | 267.72 | 267.72 | 234.26 | 234.26 | 267.72 | 234.26 | 83.66 | 0.00 | 83.66 |
| 5-yr composite inspections | 69 | 13.65 | 1531.53 | 1531.53 | 1493.31 | 1493.31 | 1531.53 | 1363.64 | 45.05 | 191.10 | 857.22 |
| Annual nondischarge insp(5) | 69 | 13.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Intensive toxicity eval | 67 | 12.70 | 30.71 | 30.71 | 30.71 | 30.71 | 30.71 | 30.71 | 0.00 | 0.00 | 0.00 |
| Self-monitoring data rev | 72 | 15.88 | 9.60 | 9.60 | 9.60 | 9.60 | 9.60 | 9.60 | 9.60 | 9.60 | 9.60 |
| Renewal notice | 65 | 11.62 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 | 7.02 |
| Supervision | 76 | 19.12 | 577.90 | 577.90 | 577.90 | 577.90 | 577.90 | 577.90 | 115.58 | 115.58 | 115.58 |
| Authorization to construct | 72 | 15.88 | 522.21 | 522.21 | 522.21 | 522.21 | 522.21 | 522.21 | 0.00 | 0.00 | 527.97 |
| Tax certification | 71 | 15.15 | 146.53 | 146.53 | 146.53 | 146.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTAL COST--BASIC | | | 3786.18 | 3667.13 | 3590.51 | 3590.51 | 3856.20 | 3190.64 | 535.30 | 1146.23 | 2320.62 |
| ADDED COST FOR LEVEL C | | | 23396.53 | 23396.53 | 23396.53 | 23396.53 | 23396.53 | 23396.53 | 0.00 | 0.00 | 19557.96 |
| ADDED COST FOR HEARING | | | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 | 992.35 |
| ADDED COST FOR RECLASSIFICATION | | | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 | 3113.78 |
| ADDED COST FOR PRETREATMENT | | | 1881.49 | 1881.49 | 1881.49 | 1881.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| MAXIMUM TOTAL COST | | | 33170.34 | 33051.28 | 32974.66 | 32974.66 | 31358.86 | 30693.29 | 4641.43 | 5252.36 | 25984.70 |

Totals include public notice costs, overhead (computed at $6000 per person-year), and laboratory costs of $7850 per level C wasteload allocation and $348 per CSI inspection.

DRAFT (4/16/86)

NONDISCHARGE

ESTIMATED PERMITTING EFFORT
(PERSON-HOURS PER PERMIT OF 5-YEAR DURATION)

| ACTION | EFF GRADE | COST /HR | SLUDGE DISPOSAL | SUBSURFAC & LPP | SPRAY IRRIG | COASTAL PEG PLANT | ATC | RECYCLING, EVAP,P&M | SEWER EXT /PUMP STA | SEWER EXT | DELEGATED MUN SEWER | SINGLE FAMILY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Preapplication conference | 71 | 15.15 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| Application administration | 57 | 8.29 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Initial engineering review | 72 | 15.88 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 1.0 | 1.5 | 1.0 | 0.5 | 4.0 |
| Biocide review | 72 | 15.88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pretreatment program | 72 | 15.88 | 0.0 | 0.0 | 98.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Staff report | 71 | 15.15 | 72.0 | 16.0 | 30.0 | 15.0 | 4.0 | 4.0 | 0.5 | 0.5 | 0.0 | 24.0 |
| WLA level B | 71 | 15.15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| WLA level C - modeling | 73 | 16.67 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| WLA level C - field work | 67 | 12.70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| WLA level C/add reaeration | 67 | 12.70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| WLA level C renewal review | 73 | 16.67 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Review monitoring databases | 69 | 13.84 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Data entry | 57 | 8.29 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Final engr rev/draft permit | 72 | 15.88 | 6.0 | 6.0 | 6.0 | 7.0 | 6.0 | 2.5 | 3.0 | 2.5 | 2.0 | 6.0 |
| Public notice | 57 | 8.29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hearing | 75 | 18.24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Reclass / use attainability | 71 | 15.15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Permit issuance | 65 | 11.62 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.2 | 0.2 | 0.2 | 0.5 |
| Records/data management | 57 | 8.29 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| CEI | 69 | 13.84 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| CSI | 69 | 13.84 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| CSI biomonitoring | 68 | 13.27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| O&M | 69 | 13.84 | 0.0 | 0.0 | 12.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5-yr composite inspections | 69 | 13.65 | 0.0 | 0.0 | 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Annual nondischarge inspec(5) | 69 | 13.65 | 40.0 | 15.0 | 40.0 | 15.0 | 15.0 | 15.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Intensive toxicity eval | 67 | 12.70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Self-monitoring data rev | 72 | 15.88 | 20.0 | 15.0 | 20.0 | 15.0 | 0.0 | 15.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Renewal notice | 65 | 11.62 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Supervision | 76 | 19.12 | 25.0 | 5.0 | 25.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| TOTAL STAFF TIME-BASIC | | | 175.2 | 69.2 | 193.2 | 69.2 | 42.2 | 50.7 | 14.9 | 13.9 | 12.4 | 47.2 |
| ADDITIONAL STAFF TIME-PRETREATMENT | | | 0.0 | 0.0 | 98.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

DRAFT (4/16/86)

NONDISCHARGE

ESTIMATED PERMITTING COSTS
(PER PERMIT OF 5-YEAR DURATION)

| ACTION | EFF GRADE | COST /HR | SLUDGE DISPOSAL | SUBSURFAC & LPP | SPRAY IRRIGATIO | COASTAL PKG PLANT | ATC | RECYCLING, EVAP,P&H | SEWER EXT /PUMP STA | SEWER EXT | DELEGATED MUN SEWER | SINGLE FAMILY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Preapplication conference | 71 | 15.15 | 45.45 | 45.45 | 45.45 | 45.45 | 45.45 | 45.45 | 0.00 | 0.00 | 0.00 | 45.45 |
| Application administration | 57 | 8.29 | 12.44 | 12.44 | 12.44 | 12.44 | 12.44 | 12.44 | 12.44 | 12.44 | 12.44 | 12.44 |
| Initial engineering review | 72 | 15.88 | 63.52 | 63.52 | 63.52 | 63.52 | 63.52 | 15.88 | 23.82 | 15.88 | 7.94 | 63.52 |
| Biocide review | 72 | 15.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pretreatment review | 72 | 15.88 | 0.00 | 0.00 | 1556.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Staff report | 71 | 15.15 | 1090.80 | 242.40 | 454.50 | 227.25 | 60.60 | 60.60 | 7.58 | 7.58 | 0.00 | 363.60 |
| WLA level B | 71 | 15.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| WLA level C - modeling | 73 | 16.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| WLA level C - field work | 67 | 12.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| WLA level C/add reaeration | 67 | 12.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| WLA level C renewal review | 73 | 16.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Review monitoring databases | 69 | 13.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Data entry | 57 | 8.29 | 4.15 | 4.15 | 4.15 | 4.15 | 4.15 | 4.15 | 4.15 | 4.15 | 4.15 | 4.15 |
| Final engr rev/draft permit | 72 | 15.88 | 95.28 | 95.28 | 95.28 | 111.16 | 95.28 | 39.70 | 47.64 | 39.70 | 31.76 | 95.28 |
| Public notice | 57 | 8.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hearing | 75 | 18.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Reclass / use attainability | 71 | 15.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Permit issuance | 65 | 11.62 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 5.81 | 2.32 | 2.32 | 2.32 | 5.81 |
| Records/data management | 57 | 8.29 | 9.95 | 9.95 | 9.95 | 9.95 | 9.95 | 9.95 | 9.95 | 9.95 | 9.95 | 9.95 |
| CSI | 69 | 13.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CSI | 69 | 13.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CSI biomonitoring | 68 | 13.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| O&M | 69 | 13.84 | 0.00 | 0.00 | 166.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5-yr composite inspections | 69 | 13.65 | 0.00 | 0.00 | 819.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual nondischarge insp(5) | 69 | 13.65 | 546.00 | 204.75 | 546.00 | 204.75 | 204.75 | 204.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| Intensive toxicity eval | 67 | 12.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Self-monitoring data rev | 72 | 15.88 | 317.60 | 238.20 | 317.60 | 238.20 | 0.00 | 238.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| Renewal notice | 65 | 11.62 | 17.43 | 17.43 | 17.43 | 17.43 | 17.43 | 17.43 | 17.43 | 17.43 | 17.43 | 17.43 |
| Supervision | 76 | 19.12 | 478.00 | 95.60 | 478.00 | 95.60 | 95.60 | 95.60 | 95.60 | 95.60 | 95.60 | 95.60 |
| TOTAL COST--BASIC | | | 3191.80 | 1234.58 | 4982.67 | 1235.31 | 736.70 | 896.20 | 263.90 | 245.13 | 217.35 | 849.37 |
| ADDED COST FOR PRETREATMENT | | | 0.00 | 0.00 | 1556.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| MAXIMUM TOTAL COST | | | 3191.80 | 1234.58 | 6538.91 | 1235.31 | 736.70 | 896.20 | 263.90 | 245.13 | 217.35 | 849.37 |

Note: Total costs include overhead computed at $6000/person and laboratory costs.

## ESTIMATED EFFORT VS. AVAILABLE PERSON-YEARS

| | NUMBER/YEAR IN CATEGORY | P-HR /PERMIT | ESTIMATED TOTAL | PERSON-HOURS AVAILABLE |
|---|---|---|---|---|
| Major municipal-pretreatment | 16 | 371.4 | 6016.7 | |
| Major municipal-no pretreatment | 10 | 252.9 | 2478.4 | |
| Minor municipal-pretreatment | 14 | 358.3 | 5123.7 | |
| Minor municipal-no pretreatment | 31 | 239.8 | 7457.8 | |
| Major industrial | 21 | 256.6 | 5337.3 | |
| Minor industrial | 24 | 212.4 | 5097.6 | |
| Package plants (subdivisions, schools, institutions, MHPs) | 500 | 239.8 | 119900.0 | |
| Single family | 160 | 36.2 | 5792.0 | |
| Stormwater | 0 | 74.9 | 0.0 | |
| Cooling water/boiler blowdown | 100 | 157.3 | 15730.0 | |
| Other (mines, WTPs, etc.) | 50 | 36.8 | 1840.0 | |
| TOTAL NPDES PERMITS | 926 | - | 174773.5 | |
| WLA - level C | 3 | 1148.6 | 3445.8 | |
| Permit hearing | 20 | 54.4 | 1088.0 | |
| Reclass/use attainability | 5 | 205.5 | 1027.5 | |
| NPDES TOTAL | 954 | - | 175801.0 | |
| Sludge disposal | 70 | 175.2 | 12264.0 | |
| Subsurface and LPP | 90 | 69.2 | 6228.0 | |
| Spray irrigation | 110 | 193.2 | 21252.0 | |
| Spray irrigation-pretreatment | 3 | 291.2 | 873.6 | |
| Coastal package plant | 20 | 69.2 | 1384.0 | |
| Authorization to construct | 260 | 42.2 | 10972.0 | |
| Recycling, evap, pump & haul | 50 | 50.7 | 2535.0 | |
| Sewer extension with pump sta | 360 | 14.9 | 5364.0 | |
| Sewer extension | 520 | 13.9 | 7228.0 | |
| Delegated municipality sewer extension | 440 | 12.4 | 5456.0 | |
| Single family spray irrigation | 30 | 47.2 | 1416.0 | |
| NONDISCHARGE TOTAL | 1953 | - | 74972.6 | |
| TOTAL ALL PERMITS | 2907 | | 250773.6 | 154960.0 |

Nondischarge permits do not include renewals of 5-yr and 2-yr duration permits.
ATCs and sewer extensions have indefinite durations.
Total person-hours available derived from FY86 program plan, page 19.

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ESTIMATED ACTUAL COST VS. PRESENT PERMIT REVENUES

| TYPE OF PERMITS | NO/YR | FEE NOW | TOTAL FEES | COST PER PERMIT | TOTAL COST | POTENTIAL INCREASE |
|---|---|---|---|---|---|---|
| Major municipal-pretreatment | 16 | $100.00 | $1,620.00 | $5,667.67 | $91,816.25 | $90,196.25 |
| Major municipal-no pretreatment | 10 | $100.00 | $980.00 | $3,786.18 | $37,104.56 | $36,124.56 |
| Minor municipal-pretreatment | 14 | $100.00 | $1,430.00 | $5,472.00 | $78,249.60 | $76,819.60 |
| Minor municipal-no pretreatment | 31 | $100.00 | $3,110.00 | $3,590.51 | $111,664.86 | $108,554.86 |
| Major industrial | 21 | $100.00 | $2,080.00 | $3,856.20 | $80,208.96 | $78,128.96 |
| Minor industrial | 24 | $100.00 | $2,400.00 | $3,190.64 | $76,575.36 | $74,175.36 |
| Package plants (subdivisions, schools, institutions, MHPs) | 500 | $100.00 | $50,000.00 | $3,590.51 | $1,799,755.00 | $1,749,755.00 |
| Single family | 160 | $25.00 | $4,000.00 | $535.30 | $85,648.00 | $81,648.00 |
| Stormwater | 0 | $0.00 | $0.00 | $1,146.23 | $0.00 | $0.00 |
| Cooling water/boiler blowdown | 100 | $75.00 | $7,500.00 | $2,320.62 | $232,062.00 | $224,562.00 |
| Other (mines, WTPs, etc.) | 50 | $100.00 | $5,000.00 | $574.31 | $28,715.50 | $23,715.50 |
| TOTAL NPDES PERMITS | 926 | - | $78,120.00 | - | $2,621,800.10 | $2,543,680.10 |
| WLA - level C | 3 | $0.00 | $0.00 | $23,396.53 | $70,189.59 | $70,189.59 |
| Permit hearing | 20 | $0.00 | $0.00 | $992.35 | $19,847.00 | $19,847.00 |
| Reclass/use attainability | 5 | $0.00 | $0.00 | $3,113.78 | $15,568.90 | $15,568.90 |
| NPDES TOTAL | 954 | - | $78,120.00 | - | $2,727,405.59 | $2,649,285.59 |
| Sludge disposal | 70 | $100.00 | $7,000.00 | $3,191.80 | $223,426.00 | $216,426.00 |
| Subsurface and LPP | 90 | $75.00 | $6,750.00 | $1,234.58 | $111,112.20 | $104,362.20 |
| Spray irrigation | 110 | $75.00 | $8,250.00 | $4,982.67 | $548,093.70 | $539,843.70 |
| Spray irrigation-pretreatment | 3 | $75.00 | $225.00 | $6,538.91 | $19,616.73 | $19,391.73 |
| Coastal package plant | 20 | $75.00 | $1,500.00 | $1,235.31 | $24,706.20 | $23,206.20 |
| Authorization to construct | 260 | $0.00 | $0.00 | $736.70 | $191,542.00 | $191,542.00 |
| Recycling, evap, pump & haul | 50 | $75.00 | $3,750.00 | $896.20 | $44,810.00 | $41,060.00 |
| Sewer extension with pump sta | 360 | $50.00 | $18,000.00 | $263.90 | $95,004.00 | $77,004.00 |
| Sewer extension | 520 | $25.00 | $13,000.00 | $245.13 | $127,467.60 | $114,467.60 |
| Delegated municipality sewer extension | 440 | $10.00 | $4,400.00 | $217.35 | $95,634.00 | $91,234.00 |
| Single family spray irrigatio | 30 | $25.00 | $750.00 | $849.37 | $25,481.10 | $24,731.10 |
| NONDISCHARGE TOTAL | 1953 | - | $63,625.00 | | $1,506,893.53 | $1,443,268.53 |
| TOTAL ALL PERMITS | 2907 | - | $141,745.00 | - | $4,234,299.12 | $4,092,554.12 |

All NPDES renewals are treated like new permits since processing and compliance effort are the same. Nondischarge renewals are not included in these tables but should be. Fees are now set at $25.00 for all renewals but 79% of all nondischarge permits never expire.

EFFORT AND COST OF PERMITTING

Purposes of Study:

(1) To determine current actual costs of each step in permitting and compliance on each type of NPDES (National Pollution Discharge Elimination System) permit and state nondischarge permit.

(2) To determine the total costs to the Division of Environmental Management (DEM) for each type of permit over their full duration from preapplication conference to expiration (life cycle costs).

(3) To devise a revised water quality permit fee schedule which would recoup a set proportion of these costs.

(4) To evaluate the adequacy of present funding to fulfill our current programmatic commitments.

Methods:

Structured one-on-one interviews with knowledgeable persons in DEM constituted the primary method used in this study. For each topic or process step, from three to twelve persons were interviewed. For each step or process, at least one person from each regional office was interviewed. Initial interviews were used to define the steps in NPDES and nondischarge permitting and compliance, and a draft sequence of steps was reviewed by each region and by numerous central office personnel. Similarly, preliminary categories of permit types were developed in interviews and then reviewed.

From these lists two matrices were developed with sequence of steps versus categories of permit types, one for NPDES permits and the other for nondischarge permits. The cells of the matrices were filled during interviews with regional and central office personnel, generally with the persons directly performing each step and their supervisor. Each interviewee was asked to estimate the time spent on each step both as a range and as a "typical" value. In nearly every case at least three independent estimates were given for each step, and the median value was used. The two resulting draft matrices were circulated to the regional supervisors, regional engineers, and central office unit supervisors for review, and their comments were used to make final revisions.

Laboratory costs were taken directly from the laboratory's cost charge sheet. Laboratory costs for level C studies were compiled by the Intensive Survey Unit from their experience over the past two years. Laboratory costs for compliance sampling inspections (CSIs) were computed by getting the Compliance Unit to identify which analyses are taken in every CSI and those which are sometimes taken. The unit costs of all every-time items and 25% of the unit costs of all sometimes items were added to estimate the laboratory cost for one CSI inspection. The actual median cost of hearing public notices over the past year was used.

An imaginary 5-year composite inspection was created for NPDES compliance inspections: its time requirements are the weighted averages of the four

inspection types weighted by the number of each type of inspection committed to in the FY86 program plan. This artificial construct was necessary because there is no written guidance concerning which type of inspection any given facility should undergo and because none of the interviewees were willing to commit to estimate the actual relative frequencies of the four types of inspections. As a fair estimate of effort, the 5-year composite inspection seems to work well and showed little sensitivity to large changes in the effort estimates in any one type of inspection or in the weighting coefficients.

The overall estimates of effort, in terms of person-hours, were then adjusted to account for leave taken by employees and for "real world" applications. Throughout the interviewing process, interviewees were asked to deal with "perfect" applications which did not require additional information, phone calls, conferences, or mailings. After the effort matrices were compiled, those permitting steps up through final engineering review were multiplied by a factor of 1.3 to convert from perfect to real world application quality. Level C wasteload allocation steps were not adjusted in this manner.

The effort matrices were then multiplied throughout by a factor of 1.209 to correct for leave taken by employees (vacation, sick leave, military leave, but not compensatory time). The 1.209 factor was computed from the management information system (MIS) figures for permitting activities for the year ending 9/30/85.

For each permitting and compliance step, a weighted average classification of employee doing that step was computed, based on individual classifications and relative individual effort in that step. All employees were presumed to be at step 4B which is accurate to within 5% of the actual steps when tested against at 10% sample of the full Water Quality Section.

Cost matrices were generated from the two effort matrices using these weighted costs, and costs for all steps for each permit type were summed to give the total permit cost for that type permit.

A final round of interviews was used to estimate the number of permits which is expected in FY87 in each category. For municipal permits, this estimate is very accurate because it is based on the list of expiring permits. For industries and package plants, the estimates are based on the high levels of activities experienced since January 1986 during a period of very high economic activity in most parts of the state. In any case the cost per permit data are independent of the number of permits issued or active during any period of time.

## Results

The results of this survey are given in the six attached spreadsheets.

# APPENDIX N

## EPA Permit Issuance Workload Model, 1987

This appendix provides the EPA workload model that estimates outputs, workloads, and resources for various types of NPDES Permits.

PERMIT ISSUANCE
FY 1987 WORKLOAD MODEL

## I. General Description

The FY 1987 Permit Issuance Model was developed based on a workgroup meeting between Regional and Headquarters representatives. As a result of the meeting, several new activities have been added to the model. These activities are: minor permitting, modifications/reopeners, general permits maintenance, state consistency reviews, local limits technical assistance, POTW audit activities and modifications to reflect national pretreatment program changes. The activities, pricing factors and assumptions regarding outputs in the FY87 model are essentially the same as in the FY86 model. However, some changes have been made to existing activities regarding assumptions and pricing factors. These changes include: the percentage of water quality-based permits has increased, the pricing factor for state program development and review has decreased, and the pricing factor for NPDES State assessment has increased. The workloads and associated resources are presented in three parts: Permitting; State Programs; and Pretreatment. Each part consists of: 1) a discussion of the approach taken; 2) a table showing the activities, descriptions, pricing factors, outputs, and comments explaining any important features or assumptions related to the outputs; 3) regional workloads; and 4) regional resources associated with the workloads.

Two assumptions underlie most of the output projections contained in this model. First, it is assumed that 20% of the total number of major permits (EPA and NPDES States) will be reissued in FY87. Second, to avoid a complex and prematurely speculative exchange of outputs between State program related activities and EPA permitting and pretreatment activities, the model assumes the current status of State program approvals.

The last part of the FY87 model presents the Regional resource distribution derived from the activities and workloads included in the model, the actual FY86 resource distribution and an adjusted FY87 resource distribution.

## II. Permitting

Permitting activities include major and minor permit issuance to cities, industries and federal facilities as well as issuance of general permits and other activities associated with assuring complete and fully effective permits (responding to requests for hearings and variances). A computer printout of current PCS data on the status of permits was used to project the permit issuance workloads. Additional estimates were made of the number of these permits which will be water quality-based and will have request for hearings and variances. Estimates were also made on the number of significant minor permits, new source and general permits which will be issued.

Table 1 presents the permitting activities, pricing factors, outputs and comments, including assumptions. The Regional workloads for permitting and related activites are provided in Table 2. The resources (in FTE's) needed to complete the workloads for the permitting activities are provided in Table 3.

TABLE 1
Permitting

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| 1. Major Municipal | Issue major municipal permits. | | | Assumes 20% of the total number of major municipal permits. |
| (a) Water Quality-Based | Issue permits with effluent limits based primarily on water quality standards. | 60 days/ per permit | 146 | 80% of the municipal permits to be issued are estimated to be water quality-based. |
| (b) Routine | Issue major municipal permits (technology-base). | 20 days/ per permit | 40 | |
| (c) Modifications/ Reopeners | A change in the permit triggered by specific events (i.e., promulgation of effluent guidelines, biomonitoring, new information, etc.). | 20 days/ per permit | 80 | Assumes 10% of permits issued in FY83, FY84, FY85, and FY86 will be modified or reopened. |
| (2) Major Industrial | Issue major industrial permits (technology-base). | | | Assumes 20% of the total number of major industrial permits. |
| (a) Water Quality-Based | Issue permits with effluent limits based primarily on water quality standards. | 60 days/ per permit | 196 | 80% of the industrial permits to be issued are estimated to be water quality-based. |
| (b) BAT | Issue permits in industrial categories for which effluent guidelines are promulgated and define BAT. | 40 days/ per permit | 23 | |
| (c) BAT=BPT | Issue permits in industrial categories for which effluent guidelines are promulgated and define BAT equal to BPT. | 25 days/ per permit | 15 | |

TABLE 1
Permitting

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| (d) Paragraph 8 | Issue permits in industrial categories covered or expected to be covered by paragraph 8. | 25 days/ per permit | 1 | |
| (e) Secondary | Issue permits to majors in categories other than primary industry categories. | 25 days/ per permit | 5 | |
| (f) Federal Facilities | Issue permits to major federal facilities. | 25 days/per permit | 7 | |
| (g) New Source Permits | Issue permits to major new sources. | 40 days/per permit | 43 | Output equals 2% of the total number of major permits. |
| (h) Modifications/ Reopeners | A change in the permit triggered by specific events (i.e., promulgation of effluent guidelines, biomonitoring, request from the permittee, etc.). | 20 days/per permit | 110 | Assumes 10% of major permits issued in FY83, FY84, FY85 and FY86 will be modified or reopened. |

TABLE 1
Permitting

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| 3. Minor Municipal | Issue significant minor municipal permits. | | | Assumes that 10% of the 20% of total minor municipal permits will be significant minors. |
| (a) Water Quality-Based | Issue permits with effluent limits based primarily on water quality standards. | 60 days/per permit | 37 | 80% of the signficant minors are estimated to be water quality-based. |
| (b) Routine | Issue permits to minor permits (technology-base). | 20 days/per permit | 10 | |
| 4. Minor Industrial | Issue significant minor industrial permits. | | | Assumes that 10% of the 20% of total minor industrial permits will be significant minors. |
| (a) Water Quality-Based | Issue permits with effluent limits based primarily on water quality standards. | 60 days/per permit | 101 | (See minor municipal permit comments). |
| (b) BAT | (See major industrial permit description). | 40 days/per permit | 7 | |
| (c) BAT=BPT | (See major industrial description). | 25 days/per permit | 2 | |
| (d) Paragraph | (See major industrial description). | 25 days/per permit | 1 | |
| (e) Secondary | (See major industrial description). | 25 days/per permit | 12 | |
| (f) Federal Facility | (See major industrial description). | 25 days/per permit | 3 | |

TABLE 1
Permitting

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| 5. General Permits | | | | |
| (a) OCS | Issue general permits covering outer continental shelf activities. | 200 days/per permit | 23 | |
| (b) Non-OCS | Issue general permits covering a category of discharges within a geographic area. | 75 days/per permit | 10 | This output includes EPA drafting of permits and EPA assisting the NPDES States in drafting permits. |
| (c) Maintenance of general permits | Ongoing reporting, monitoring and tracking of general permits. | 0.1 workyear/ per Region | 10 | |
| 6. Variances | Act on variances requested by major industrial permittees. | 65 days/per variance | 63 | This output is estimated assuming 5% of the total number of major industrial permittees will request a variance. |
| (a) FDF' for Indirects | | 65 days/per variance | 8 | This output is estimated assuming 10% of the organic chemical plants will request an FDF variance. |
| 7. Hearings | | | | |
| (a) settled | Settle requests for evidentiary hearings through negotiation. | 50 days/per request | 59 | This output is estimated assuming the following percentages of permittees will request evidentiary hearings which will be settled without formal adjudication:<br>5% of municipal<br>10% of BAT<br>60% of BAT=BPT<br>60% of Paragraph 8<br>10% of Secondary<br>15% of Water Quality-Based |

TABLE 1
Permitting

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| Hearings | | | | |
| (b) conducted | Participate in formal adjudicatory hearings. | 220 days/per hearing | 4 | This output is estimated assuming adjudicatory hearings will be held on 2% of the major industrial and water quality-based permits. |

TABLE 2
Permitting Workload - EPA

| | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Major Municipal: | | | | | | | | | | | |
| Water Quality | 32 | 6 | - | 18 | - | 70 | - | 9 | 4 | 7 | 146 |
| Routine | 9 | 1 | 1 | 5 | - | 18 | - | 3 | 1 | 2 | 40 |
| Modifications/ Reopeners | 18 | 2 | - | 12 | - | 36 | - | 6 | 2 | 4 | 80 |
| Major Industrial: | | | | | | | | | | | |
| Water Quality | 25 | 13 | - | 26 | - | 76 | - | 4 | 5 | 47 | 196 |
| BAT | 4 | 3 | - | 5 | - | 10 | - | - | 1 | - | 23 |
| BAT=BPT | - | - | - | - | - | 2 | - | 1 | - | 12 | 15 |
| Paragraph 8 | - | - | - | - | - | 1 | - | - | - | - | 1 |
| Secondary | 1 | - | - | 2 | - | 2 | - | - | - | - | 5 |
| Federal | 1 | - | 1 | - | - | 5 | - | - | - | - | 7 |
| New Sources | 7 | 2 | - | 5 | - | 18 | - | 2 | 1 | 8 | 43 |
| Modifications/ Reopeners | 14 | 6 | - | 14 | - | 42 | - | 2 | 2 | 30 | 110 |
| Minor Municipal: | | | | | | | | | | | |
| Water Quality | 2 | 2 | - | 1 | - | 26 | - | 4 | 1 | 1 | 37 |
| Routine | 1 | - | - | - | - | 7 | - | 1 | - | 1 | 10 |
| Minor Industrial: | | | | | | | | | | | |
| Water Quality | 11 | 2 | 1 | 10 | - | 57 | - | 4 | 2 | 14 | 101 |
| BAT | 2 | - | - | 2 | - | 1 | - | 1 | - | 1 | 7 |
| BAT=BPT | 1 | - | - | - | - | - | - | - | - | 1 | 2 |
| Paragraph 8 | - | - | - | - | - | 1 | - | - | - | - | 1 |
| Secondary | - | - | - | - | - | 11 | - | - | - | 1 | 12 |
| Federal | - | - | - | - | - | 2 | - | - | - | 1 | 3 |
| General Permits: | | | | | | | | | | | |
| OCS | 1 | 3 | 3 | 4 | - | 1 | - | - | 3 | 8 | 23 |
| Non-OCS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 |
| Variances: | | | | | | | | | | | |
| Direct | 8 | 4 | - | 8 | - | 24 | - | 2 | 2 | 15 | 63 |
| Indirect-FDP's | - | 2 | - | - | 2 | 3 | - | - | 1 | - | 8 |
| Hearings: | | | | | | | | | | | |
| Settled | 8 | 3 | - | 7 | - | 22 | - | 2 | 2 | 15 | 59 |
| Conducted | 1 | - | - | - | - | 2 | - | - | - | 1 | 4 |

TABLE 3
Permitting FTE - EPA

| | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Major Municipal:** | | | | | | | | | | | |
| Water Quality | 8.7 | 1.6 | - | 4.9 | - | 19.1 | - | 2.5 | 1.1 | 1.9 | 39.8 |
| Routine | 0.8 | - | - | 0.5 | - | 1.6 | - | 0.8 | - | 0.2 | 3.9 |
| Modifications/ Reopeners | 1.6 | 0.2 | - | 1.1 | - | 3.3 | - | 0.5 | 0.2 | 0.4 | 7.3 |
| **Major Industrial:** | | | | | | | | | | | |
| Water Quality | 6.8 | 3.5 | - | 7.0 | - | 20.7 | - | 1.1 | 1.4 | 12.8 | 53.3 |
| BAT | 0.7 | 0.5 | - | 0.9 | - | 1.8 | - | - | 0.2 | - | 4.1 |
| BAT=BPT | - | - | - | - | - | 0.2 | - | 0.1 | - | 1.4 | 1.7 |
| Paragraph 8 | - | - | - | - | - | 0.1 | - | - | - | - | 0.1 |
| Secondary | 0.1 | - | - | 0.2 | - | 0.2 | - | - | - | - | 0.5 |
| Federal | 0.1 | - | 0.1 | - | - | 0.6 | - | - | - | - | 0.8 |
| New Sources | 1.3 | 0.4 | - | 0.9 | - | 3.3 | - | 0.4 | 0.2 | 1.5 | 8.0 |
| Modifications/ Reopeners | 1.3 | 0.5 | - | 1.3 | - | 3.8 | - | 0.2 | 0.2 | 2.7 | 10.0 |
| **Minor Municipal:** | | | | | | | | | | | |
| Water Quality | 0.5 | 0.5 | - | 0.3 | - | 7.1 | - | 1.1 | 0.3 | 0.3 | 10.1 |
| Routine | - | - | - | - | - | 0.6 | - | - | - | - | 0.6 |
| **Minor Industrial:** | | | | | | | | | | | |
| Water Quality | 3.0 | 0.5 | 0.3 | 2.7 | - | 15.5 | - | 1.1 | 0.5 | 3.8 | 27.4 |
| BAT | 0.3 | - | - | 0.3 | - | 0.2 | - | 0.2 | - | 0.2 | 1.2 |
| BAT=BPT | 0.1 | - | - | - | - | - | - | - | - | 0.1 | 0.2 |
| Paragraph 8 | - | - | - | - | - | 0.1 | - | - | - | - | 0.1 |
| Secondary | - | - | - | - | - | 1.3 | - | - | - | 0.1 | 1.4 |
| Federal | - | - | - | - | - | 0.2 | - | - | - | 0.1 | 0.3 |
| **General Permits:** | | | | | | | | | | | |
| OCS | 0.9 | 1.9 | 1.9 | 2.4 | - | 0.9 | - | - | 2.7 | 7.3 | 18.0 |
| Non-OCS | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 3.0 |
| General Permit Maintenance | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.0 |
| **Variances:** | | | | | | | | | | | |
| Direct | 2.4 | 1.2 | - | 2.4 | - | 7.1 | - | 0.6 | 0.6 | 4.4 | 18.7 |
| Indirect-FDF's | - | 0.6 | - | - | 0.6 | 0.8 | - | - | 0.3 | - | 2.3 |
| **Hearings:** | | | | | | | | | | | |
| Settled | 1.8 | 0.7 | - | 1.6 | - | 5.0 | - | 0.5 | 0.2 | 3.4 | 13.2 |
| Conducted | 1.0 | - | - | - | - | 2.0 | - | - | - | 1.0 | 4.0 |
| **Total** | 31.8 | 12.5 | 2.7 | 26.9 | 1.0 | 95.9 | 0.4 | 9.5 | 8.3 | 42.0 | 231.0 |

## III. State Programs

State program activities include: the development and approval of new State NPDES programs and modification of approved NPDES State programs; the assessment of approved State programs; assistance to States in the preparation of major and minor permit terms and conditions and resolution of challenges to major permits; and the review of major permits and State regulations to ensure consistency with the NPDES regulations and the Clean Water Act. Tables 4 and 7 lists these activities along with pricing factors, outputs, and the assumptions used in developing the outputs.

Table 4 shows the basic State permit issuance data used to project EPA workloads for assisting States in major and minor permit issuance and in reviewing State permits. Table 4 also includes the estimated number of hearings or appeals of permit terms or conditions. Table 5 shows the resources (FTE's) needed to complete the workloads.

The State programs approval and assessment workload and the regional resource needs are presented in Tables 8 and 9. The outputs are based on the number of States not yet approved to administer the NPDES permit program and those States for which modifications to add pretreatment and federal facility permit authority expected in FY87.

TABLE 4
State Programs

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| NPDES State - Permit Assistance | Technical assistance provided to States in the preparation of major permit conditions for the various types of permits and for the resolution of challenges to permits. | | | |
| 1. Major Municipal | | | | (1) |
| (a) Water Quality-Based | (1) | 30 days/per permit | 219 | 50% of State permit workload. |
| (b) Routine | (1) | 10 days/per permit | 9 | 10% of State permit workload. |
| (c) Modifications/ Reopeners | (1) | 10 days/per permit | 186 | (1) |
| 2. Major Industrial | (1) | | | (1) |
| (a) Water Quality-Based | (1) | 30 days/per permit | 203 | 50% of State permit workload. |
| (b) BAT | (1) | 20 days/per permit | - | 10% of State permit workload. |
| (c) BAT-BPT | (1) | 10 days/per permit | 2 | 50% of State permit workload. |
| (d) Paragraph 8 | (1) | 10 days/per permit | - | 50% of State permit workload. |
| (e) Secondary | (1) | 5 days/per permit | - | 10% of State permit workload. |

(1) = See Table 1 Descriptions and Comments

TABLE 4
State Programs

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| Major Industrial | | | | |
| (f) Federal Facilities | (1) | 20 days/per permit | - | 20% of State permit workload. |
| (g) New Sources | (1) | 15 days/per | 20 | 20% of State permit workload. |
| (h) Modifications/ Reopeners | (1) | 10 days/per permit | 180 | (1) |
| 3. Minor Municipal | (1) | | | (1) |
| (a) Water Quality-Based | (1) | 30 days/per permit | 75 | 50% of state permit workload |
| (b) Routine | (1) | 10 days/per permit | 1 | 10% of state permit workload |
| 4. Minor Industrial | (1) | | | (1) |
| (a) Water Quality Based | (1) | 30 days/per permit | 308 | 50% of state permit workload |
| (b) BAT | (1) | 20 days/per permit | 2 | 10% of state permit workload |
| (c) BAT-BPT | (1) | 10 days/per permit | 16 | 50% of state permit workload |

(1) = See Table 1 Descriptions and Comments

TABLE 4
State Programs

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| Minor Industrial | | | | |
| (d) Paragraph 8 | (1) | 10 days/per permit | 7 | 50% of state permit workload |
| (e) Secondary | (1) | 5 days/per permit | 17 | 10% of state permit workload |
| (f) Federal | (1) | 20 days/per permit | 2 | 20% of state permit workload |
| 5. Permit Review | Review permits for consistency with regulations and standards. | 3 days/per permit | 760 | Assumes that EPA will review all state major permits and 25% of others. The number to be reviewed is the total permits issued less the number for which EPA provided assistance. |
| 6. Hearings | | | | |
| (a) settled | (1) | 50 days/per request | 12 | 10% of State hearing workload. |
| 7. Variances | (1) | 65 days/per request | 128 | (1) |

(1) See Table 1 Descriptions and Comments

TABLE 5
Permitting Workload - NPDES State Assistance

| | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Major Municipal: | 25 | 85 | 75 | 115 | 130 | - | 44 | 27 | 33 | 16 | 550* |
| Water Quality | 10 | 34 | 30 | 46 | 52 | - | 18 | 10 | 13 | 6 | 219 |
| Routine | 1 | 2 | 1 | 2 | 3 | - | - | - | - | - | 9 |
| Modifications/ Reopeners | 8 | 24 | 28 | 35 | 48 | - | 15 | 10 | 13 | 5 | 186 |
| Major Industrial: | 30 | 69 | 82 | 139 | 111 | - | 26 | 20 | 23 | 15 | 515* |
| Water Quality | 12 | 27 | 32 | 55 | 44 | - | 10 | 8 | 9 | 6 | 203 |
| BAT | - | - | - | - | - | - | - | - | - | - | - |
| BAT=BPT | - | 1 | - | 1 | - | - | - | - | - | - | 2 |
| Paragraph 8 | - | - | - | - | - | - | - | - | - | - | - |
| Secondary | - | - | - | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - | - | - | - |
| New Sources | 1 | 3 | 3 | 5 | 5 | - | 1 | 1 | 1 | - | 20 |
| Modifications/ Reopeners | 9 | 18 | 28 | 55 | 41 | | 8 | 6 | 10 | 5 | 180 |
| Minor Municipal: | 2 | 8 | 24 | 35 | 64 | - | 40 | 11 | 2 | 6 | 192* |
| Water Quality | 1 | 3 | 9 | 14 | 25 | - | 16 | 4 | 1 | 2 | 75 |
| Routine | - | - | - | - | 1 | - | - | - | - | - | 1 |
| Minor Industrial: | 13 | 81 | 153 | 198 | 173 | - | 83 | 35 | 18 | 21 | 775* |
| Water Quality | 5 | 32 | 61 | 79 | 69 | - | 33 | 14 | 7 | 8 | 308 |
| BAT | - | - | 1 | - | 1 | - | - | - | - | - | 2 |
| BAT=BPT | 1 | - | 6 | 2 | 4 | - | 2 | 1 | - | - | 16 |
| Paragraph 8 | 1 | - | 1 | 1 | 2 | - | - | - | 1 | 1 | 7 |
| Secondary | - | 3 | 2 | 4 | 4 | - | 1 | 1 | 1 | 1 | 17 |
| Federal | - | - | - | 1 | 1 | - | - | - | - | - | 2 |
| Permit Review | 33 | 101 | 127 | 179 | 173 | - | 57 | 34 | 35 | 21 | 760 |
| Hearings: Settled | - | 3 | 2 | 3 | 3 | - | 1 | - | - | - | 12 |
| Variances | 7 | 17 | 20 | 35 | 28 | - | 6 | 5 | 6 | 4 | 128 |

*NPDES State Permitting Workloads for FY87.

TABLE 6
Permitting FTE - NPDES State Assistance

| | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Major Municipal: | | | | | | | | | | | |
| Water Quality | 1.4 | 4.6 | 4.1 | 6.3 | 7.1 | - | 2.5 | 1.4 | 1.8 | 0.8 | 30.0 |
| Routine | - | - | - | - | 0.1 | - | - | - | - | - | 0.1 |
| Modifications/ Reopeners | 0.4 | 1.1 | 1.3 | 1.6 | 2.2 | - | 0.7 | 0.5 | 0.6 | 0.2 | 8.6 |
| Major Industrial: | | | | | | | | | | | |
| Water Quality | 1.6 | 3.7 | 4.4 | 7.5 | 6.0 | - | 1.4 | 1.1 | 1.2 | 0.8 | 27.7 |
| BAT | - | - | - | - | - | - | - | - | - | - | - |
| BAT=BPT | - | - | - | - | - | - | - | - | - | - | - |
| Paragraph 8 | - | - | - | - | - | - | - | - | - | - | - |
| Secondary | - | - | - | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - | - | - | - |
| New Sources | 0.2 | 0.5 | 0.5 | 0.9 | 0.9 | - | 0.2 | 0.2 | 0.2 | - | 3.6 |
| Modifications/ Reopeners | 0.4 | 0.8 | 1.3 | 2.5 | 1.9 | - | 0.4 | 0.3 | 0.5 | 0.2 | 8.3 |
| Minor Municipal: | | | | | | | | | | | |
| Water Quality | 0.1 | 0.4 | 1.2 | 1.9 | 3.4 | - | 2.2 | 0.5 | 0.1 | 0.3 | 10.1 |
| Routine | - | - | - | - | - | - | - | - | - | - | - |
| Minor Industrial: | | | | | | | | | | | |
| Water Quality | 0.7 | 4.4 | 8.3 | 10.8 | 9.4 | - | 4.5 | 1.9 | 1.0 | 1.1 | 42.1 |
| BAT | - | - | - | - | - | - | - | - | - | - | - |
| BAT=BPT | - | - | 0.3 | - | 0.2 | - | - | - | - | - | 0.5 |
| Paragraph 8 | - | - | - | - | - | - | - | - | - | - | - |
| Secondary | - | - | - | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - | - | - | - |
| Permit Review | 0.5 | 1.4 | 1.7 | 2.4 | 2.3 | - | 0.8 | 0.5 | 0.5 | 0.3 | 10.4 |
| Hearings: Settled | - | 0.4 | 0.3 | 0.4 | 0.4 | - | 0.1 | - | - | - | 1.6 |
| Variances | 2.1 | 5.0 | 5.9 | 10.3 | 8.3 | - | 1.8 | 1.5 | 1.8 | 1.2 | 37.9 |
| Total | 7.4 | 22.3 | 29.3 | 44.6 | 42.2 | - | 14.6 | 7.9 | 7.7 | 4.9 | 180.9 |

TABLE 7
State Programs

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| Approval/Assessment | | | | |
| 1. Program Development Assistance | Assistance in the development of NPDES program submissions and program modifications submissions. | 45 days | 18 | Full Programs |
| | | 20 days | 15 | Pretreatment Program Modifications |
| 2. Program Application Review | Review of NPDES state program submissions and NPDES State program modification submissions. | 40 days | 2<br>4<br>2 | Full NPDES Programs<br>Pretreatment Programs<br>Federal Programs |
| 3. NPDES Program Assessment | EPA assessment of approved NPDES State programs. Includes permitting and pretreatment. | | | |
| (a) Large | | 1.3 workyear/ per NPDES State with >200 majors | 11 | |
| (b) Medium | | 0.8 workyear/ per NPDES State with 100-200 majors | 10 | |

TABLE 7
State Programs

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| (c) Small | | 0.6 workyear/ per NPDES State with < 100 majors | 17 | |
| 4. Consistency Reviews | Review of State regulations to ensure consistency with NPDES regulations and the CWA. | | 4 | |

TABLE 8
State Program Approvals/Assessment Workload

| | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Development Assistance | | | | | | | | | | | |
| Full Program | 3 | 1 | - | 1 | - | 5 | - | 2 | 4 | 2 | 18 |
| Pretreatment Modifications | - | 2 | 3 | - | 2 | - | 1 | 4 | 2 | 1 | 15 |
| Program Application Review/Approval | | | | | | | | | | | |
| Full Program | - | - | - | - | - | 1 | - | 1 | - | - | 2 |
| Pretreatment | - | - | 1 | - | 1 | - | 1 | 1 | - | - | 4 |
| Federal Facility | 1 | - | 1 | - | - | - | - | - | - | - | 2 |
| NPDES Program Assessment | | | | | | | | | | | |
| Large | 1 | 2 | 1 | 3 | 3 | - | - | - | 1 | - | 11 |
| Medium | - | - | 2 | 3 | 2 | - | 1 | 1 | 1 | - | 10 |
| Small | 2 | 1 | 2 | 1 | 1 | - | 3 | 3 | 2 | 2 | 17 |
| NPDES State Consistency Review | - | - | 1 | 1 | - | - | 1 | 1 | - | - | 4 |

TABLE 9
State Program Approvals/Assessment FTE

| | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Development Assistance | | | | | | | | | | | |
| Full Program | 0.6 | 0.2 | - | 0.2 | - | 1.0 | - | 0.4 | 0.8 | 0.4 | 3.6 |
| Pretreatment Modifications | - | 0.2 | 0.3 | - | 0.2 | - | 0.2 | 0.7 | 0.2 | 0.2 | 2.0 |
| Program Application Review/Approval | | | | | | | | | | | |
| Full Program | - | - | - | - | - | 0.2 | - | 0.2 | - | - | 0.4 |
| Pretreatment | - | - | 0.2 | - | 0.2 | - | 0.2 | 0.2 | - | - | 0.8 |
| Federal Facility | 0.2 | - | 0.2 | - | - | - | - | - | - | - | 0.4 |
| NPDES Program Assessment | | | | | | | | | | | |
| Large | 1.3 | 2.6 | 1.3 | 3.9 | 3.9 | - | - | - | 1.3 | - | 14.3 |
| Medium | - | - | 1.6 | 2.4 | 1.6 | - | 0.8 | 0.8 | 0.8 | - | 8.0 |
| Small | 1.2 | 0.6 | 1.2 | 0.6 | 0.6 | - | 1.8 | 1.8 | 1.2 | 1.2 | 10.2 |
| NPDES State Consistency Review | - | - | 0.5 | 0.5 | - | - | 0.5 | 0.5 | - | - | 2.0 |
| Total | 3.3 | 3.6 | 5.3 | 7.6 | 6.5 | 1.2 | 3.5 | 4.6 | 4.3 | 1.8 | 41.7 |

## IV. Pretreatment

The primary focus of pretreatment activities will shift from local program approval to implementation and program oversight where the State is not approved to administer the pretreatment program.

Table 10 presents the pretreatment activities, pricing factors, total outputs and comments, including assumptions. The Regional workloads for pretreatment activities are provided in Table 11 and the associated resources needed to complete the workloads are provided in Table 12.

TABLE 10
Pretreatment

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| 1. POTW Program review/approvals/ permit modifications | Review and approval of final POTW submissions and incorporation of new requirements into the permit. | 15 days/per POTW | 20 | Assumes 2 new programs will be required per Region. |
| 2. Annual Report Reviews | Review of annual reports required to be submitted by POTWs. | 2 days/per report | 700 | All of the 700 EPA approved programs will be required to submit annual reports. |
| 3. Follow-up to Annual Report Review | Phone or written contact with POTW personnel to resolve problems. | 15 days/per report | 210 | Assumes 30% of the 700 annual reports submitted will require follow-up. |
| 4. Audit Activities | | | | |
| (a) pre-planning | File review, compliance analysis and materials preparation. | 4 days/per audit | 141 | Of the 700 EPA approved programs, 20% will receive an on-site audit. |
| (b) on-site audit | Actual staff visit to POTW site. | 3 days/per audit | 141 | 20% of 700 approved programs will receive an on-site audit. |
| (c) audit report recommendations | Produce formal report on audit complete with remedial actions for POTW. | 8 days/per report | 141 | |

TABLE 10
Pretreatment

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| (d) follow-up on audit | Written and onsite activities to insure corrections by POTW. | 5 days | 69 | Assumes 50% of POTWs audited will require some follow-up. |
| 5. EPA Assistance to Approved Pretreatment States on Audits | EPA assistance to States on audits. | 20 days/audit | 99 | Assumes 10% of State approved pretreatment programs will be visited by EPA/State evaluation teams during audits. |
| 6. Local Limits Technical Assistance | Develop individual local limits with POTWs. | 60 days | 143 | Assumes roughly 10% of 1463 required POTW programs will require technical assistance on local limits. |
| 7. Modifications to Reflect National Program Changes | A change in the program triggered by specific events (e.g., revised regulations, local limits policy and toxicity limits). | 10 days | 292 | Assumes 20% of the 1463 required pretreatment programs will be modified. |

TABLE 10
Pretreatment

| Activities | Descriptions | Pricing Factors | Output | Comments/ Assumptions |
|---|---|---|---|---|
| 8. BMR Reviews | Review of baseline monitoring report required by industry. | 2 days/IU | 100 | Assumes about 100 IUs required to submit BMRs are located where EPA is the control authority. |
| 9. Category Determinations | Determining what categorical pretreatment standard applies to a specific industry. | 12 days/IU | 34 | Roughly 1/3 of the 100 industrial users in the organic chemical category will request a category determination. |
| 10. Removal Credits | | | | |
| (a) Application Reviews | Evaluating individual POTW submissions demonstrating pollutant removal. | 15 days | 35 | 5% of the total 700 local POTWs will request removal credits authority. |
| (b) Consistent Removal Evaluations | Evaluate the consistent removal for existing credit recipients. | 5 days | 43 | EPA will review consistent removal for all recipients. |
| 11. Control of IUs in non-pretreatment POTWs where EPA is control authority | Identifying categorical industries not covered by approved States or POTWs and controlling their discharges. | 5 days | 1015 | |

TABLE 11
Pretreatment Workload

| PRETREATMENT | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| New Program Review and Approval | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 20 |
| Annual Report Review where EPA is Approval Authority | 68 | 57 | 116 | 28 | 99 | 123 | 13 | 52 | 120 | 24 | 700 |
| Follow-up to Annual Report Review | 20 | 17 | 35 | 8 | 30 | 37 | 4 | 16 | 36 | 7 | 210 |
| Audit Activities | | | | | | | | | | | |
| -Pre-planning for onsite audit | 14 | 11 | 23 | 6 | 20 | 25 | 3 | 10 | 24 | 5 | 141 |
| -Actual onsite audit | 14 | 11 | 23 | 6 | 20 | 25 | 3 | 10 | 24 | 5 | 141 |
| -Audit Report Recommendations | 14 | 11 | 23 | 6 | 20 | 25 | 3 | 10 | 24 | 5 | 141 |
| -Follow-up on Audit with POTW | 7 | 5 | 12 | 3 | 10 | 12 | 1 | 5 | 12 | 2 | 69 |
| EPA Assistance to Approved Pretreatment States on Audits | 11 | 5 | 3 | 43 | 24 | 0 | 11 | 0 | 0 | 2 | 99 |
| Local Limits Technical Assistance | 8 | 8 | 14 | 40 | 33 | 12 | 7 | 5 | 12 | 4 | 143 |
| Modifications to Reflect National Program Changes | 16 | 16 | 28 | 81 | 68 | 24 | 16 | 10 | 24 | 9 | 292 |
| BMR Reviews where EPA is control authority | 5 | 15 | 5 | 5 | 20 | 25 | 5 | 5 | 10 | 5 | 100 |
| Category Determinations | 2 | 5 | 2 | 2 | 6 | 8 | 2 | 2 | 3 | 2 | 34 |
| Removal Credits | | | | | | | | | | | |
| -Application reviews | 3 | 3 | 6 | 1 | 5 | 6 | 1 | 3 | 6 | 1 | 35 |
| -Consistent removal evaluations | 4 | 5 | 6 | 2 | 19 | 3 | - | 1 | 3 | - | 43 |
| Control of IUs in non-Pretreatment POTWs where EPA is control authority | 105 | 70 | 140 | 35 | 70 | 175 | 35 | 210 | 105 | 70 | 1015 |

TABLE 12
Pretreatment FTE

| PRETREATMENT | I | II | III | IV | V | VI | VII | VIII | IX | X | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| New Program Review and Approval | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.0 |
| Annual Report Review where EPA is Approval Authority | 0.5 | 0.4 | 0.9 | 0.2 | 0.8 | 1.0 | 0.1 | 0.4 | 0.9 | 0.2 | 5.4 |
| Follow-up to Annual Report Review | 1.3 | 1.1 | 2.3 | 0.5 | 2.0 | 2.5 | 0.2 | 1.0 | 2.4 | 0.4 | 13.7 |
| Audit Activities: | | | | | | | | | | | |
| -Pre-planning for onsite audit | 0.3 | 0.2 | 0.4 | 0.1 | 0.4 | 0.5 | - | 0.2 | 0.4 | 0.1 | 2.6 |
| -Actual onsite audit | 0.2 | 0.2 | 0.3 | 0.1 | 0.3 | 0.3 | - | 0.1 | 0.3 | 0.1 | 1.9 |
| -Audit Report Recommendations | 0.5 | 0.4 | 0.7 | 0.2 | 0.7 | 0.8 | - | 0.3 | 0.8 | 0.2 | 4.6 |
| -Follow-up on Audit with POTW | 0.9 | 0.6 | 1.6 | 0.8 | 1.3 | 3.2 | 0.1 | 0.6 | 1.6 | 0.2 | 10.9 |
| EPA Assistance to Approved Pretreatment States on Audits | 0.9 | 0.4 | 0.2 | 3.3 | 1.9 | - | 0.9 | - | - | 0.2 | 7.8 |
| Local Limits Technical Assistance | 2.1 | 2.1 | 3.8 | 10.9 | 9.0 | 3.2 | 1.9 | 1.3 | 3.2 | 1.0 | 38.5 |
| Modifications to Reflect National Program Changes | 0.6 | 0.6 | 1.1 | 3.1 | 2.6 | 0.9 | 0.6 | 0.4 | 0.9 | 0.4 | 11.2 |
| BMR Reviews where EPA is control authority | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 1.3 |
| Category Determinations | 0.1 | 0.3 | 0.1 | 0.1 | 0.3 | 0.4 | 0.1 | 0.1 | 0.2 | 0.1 | 1.8 |
| Removal Credits | | | | | | | | | | | |
| -Application reviews | 0.2 | 0.2 | 0.4 | 0.1 | 0.3 | 0.4 | 0.1 | 0.2 | 0.4 | 0.1 | 2.4 |
| -Consistent removal evaluations | 0.1 | 0.1 | 0.2 | 0.1 | 0.4 | 0.1 | - | 0.1 | 0.1 | - | 1.2 |
| Control of IUs in non-Pretreatment POTWs where EPA is control authority | 0.8 | 0.6 | 1.1 | 0.3 | 0.6 | 1.3 | 0.6 | 1.6 | 0.8 | 0.6 | 8.3 |
| TOTAL | 8.7 | 7.5 | 13.3 | 20.0 | 20.9 | 14.9 | 4.8 | 6.5 | 12.2 | 3.8 | 112.6 |


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