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Agency

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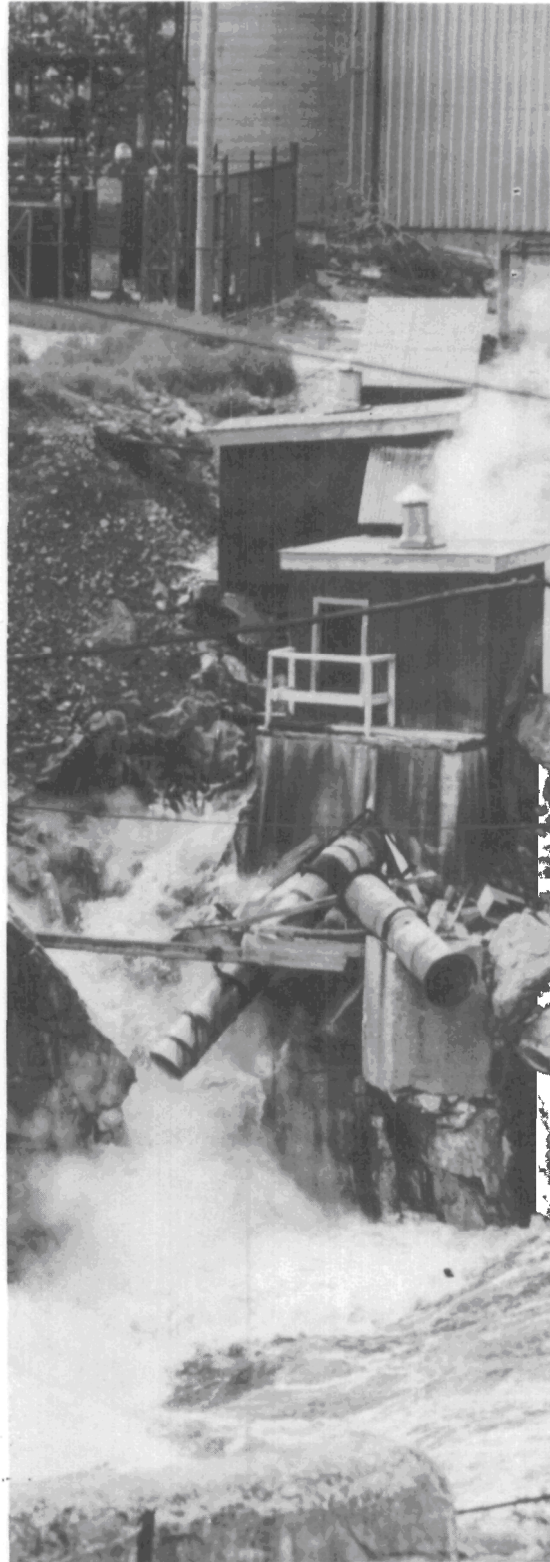
# No Small Task

Establishing National  
Effluent Limitations Guidelines  
and Standards



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**T**he Federal Water Pollution Control Act Amendments of 1972 have initiated the world's most massive attack on polluted rivers, lakes and ocean waters.

- The Amendments provide sharply increased financial help to States and communities and strengthen enforcement of the Act by the States and the U.S. Environmental Protection Agency. EPA provides grants to States and communities to construct municipal sewage treatment plants; these grants will reach \$18 billion under the Amendments.

A critical element of this broad, new national program for clean water is a system of effluent limitations and permits applicable to dischargers of wastes into navigable waters. EPA and the States issue waste-water discharge permits to individual factories, power plants, refineries, etc. based on national effluent limitations guidelines. These guidelines govern the amount, and the chemical, physical and biological characteristics of effluent that industry may dump into waterways.

(Effluent controls and the permit system also apply across-the-board to municipal sewage treatment plants.)

The system of limitations and permits is designed to help America reach two great goals of the 1972 Act—by July 1983, water that is clean enough for swimming, boating, and protection of fish, shellfish and wildlife, and by 1985, no more discharges of pollutants into the Nation's waters.

This booklet—through a series of questions and answers—discusses how effluent limitations guidelines and new source performance standards for industry are put together, their complex nature, and the scope of their application to industry. It explains how outside technical experts and the general public may participate in the development of these guidelines and standards. It also tells where the documents which form the basis of the guidelines and standards may be obtained or examined.



### **What is an effluent limitation guideline?**

An effluent limitation guideline sets forth the *degree of reduction* of a pollutant that is *attainable through the application of various levels of technology*. The guidelines are developed by EPA based on the total body of known information on effluents from a particular industry.

### **What is an effluent limitation?**

An effluent limitation is a *restriction* on the amount of a pollutant that may be released from a point source into a body of water. These limitations, based on EPA's effluent limitations guidelines, are spelled out in the discharge permits each industry must obtain in order to discharge pollutants into the Nation's waterways.

### **What is a point source?**

A point source is any discernible, confined conduit, including pipes, ditches, channels, sewers, tunnels, vessels and other floating craft, from which pollutants are discharged.

### **What are new source performance standards?**

New source performance standards reflect the greatest degree of effluent reduction which EPA determines to be achievable through the application of the "*best available demonstrated control technology*, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants." They apply to any new point sources (buildings, structures, facilities, or installations from which pollutants are discharged), on which construction begins after the publication of proposed regulations prescribing standards of performance for those sources.

### **Do effluent limitations alter our approach to pollution control?**

Yes. The thrust of enforcement is shifted from water quality standards, which regulate the amount of pollutants in a given body of water, to effluent

limitations, which regulate the amount of pollutants put into the water from specific point sources.

Also, each industry must now monitor its own discharges of pollutants, and submit periodic reports to control agencies. If the limitations do not achieve a desired water quality for a certain waterway, more stringent restrictions on the effluent may be imposed by the State or EPA.

### **How does the permit system work?**

Effluent limitations are the basis for wastewater discharge permits issued by EPA or the States. The permits are issued under the National Pollutant Discharge Elimination System (NPDES), a national program established under the 1972 Water Act. Each industrial, agricultural, and publicly-owned point source discharger must apply for and obtain a permit. If a discharger cannot comply immediately with the proposed limitations, the permit will include a schedule setting forth specific dates when the required reduction of pollutants must be achieved. Many States have been authorized by EPA to run their own permit systems, which are monitored and reviewed periodically by EPA.

### **What is the scope of NPDES?**

NPDES affects tens of thousands of industries, municipal sewage treatment plants, and agricultural sources, including feedlots. It also applies to acid mine drainage from surface and subsurface coal mines where the drainage is from a point source, and to working oil rigs on land and offshore.

By the spring of 1975, effluent limitations had been set for, and permits issued to, nearly all major industrial dischargers in the Nation.

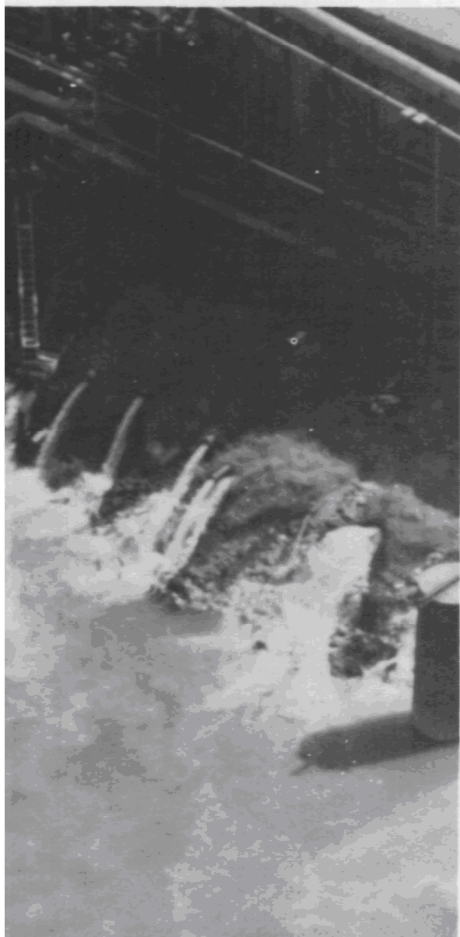
### **What are the penalties for non-compliance?**

Non-compliance with NPDES permits carries severe civil and criminal penalties. Civil violations carry penalties not exceeding \$10,000

per day. Willful or negligent violations can bring fines of up to \$25,000 a day and one year in prison for the first offense, and up to \$50,000 a day and two years in prison for subsequent violations.

**What control technologies will be employed to achieve effective effluent reduction by industry? What is the timetable?**

By July 1, 1977, all industries discharging wastes into navigable waters must achieve "best practicable control technology currently available," according to the Act. This control technology represents the average of the best existing waste treatment performance within each industry category or subcategory.



In categories of industry where waste treatment performance is generally inadequate, EPA may, in compensation, establish tougher effluent limitations, provided that the technology necessary to clean up is available at a reasonable cost. In most plants, effluent limitations may well be met by controlling in-plant technology rather than by building additions to treatment plants. In-plant controls may include conserving water, controlling leaks, purchasing better quality raw materials, substituting chemical additives or changing manufacturing processes.

By July 1, 1983, the "best available technology economically achievable" must be in force. This technology will be based on the very best control and treatment measures that have been developed or are capable of being developed within the appropriate industrial category or subcategory.

In meeting the two deadlines, dischargers *are required* to treat their wastes to a degree made possible by the two technologies, but *are not required* to use any particular method or process of pollution control.

A third level of treatment is established by the Act for new sources, such as factories, which are built after publication of proposed regulations prescribing a standard of performance. The Act describes this level of treatment as the "best available demonstrated controlled technology, processes, operating methods or other alternatives including, where practicable, a standard permitting no discharge of pollutants."

In some cases, the new source performance standard may be somewhat more stringent than either the 1977 or 1983 limitation for existing sources because better systems for treating wastes can be built right into new plants. The selection of technology and hence the development of standards for 1977, 1983 and new sources include consideration of the economic impact of uniform compliance with resulting standards.

**Table 1 Group I Industries**

<b>Industrial Category</b>	<b>Phase I Segments</b>	<b>Phase II Segments</b>
Asbestos Manufacturing	Building, Construction & Paper	Textile, Friction Materials, & Sealing Devices
Builders Paper and Board Mills	Builders Paper & Roofing Felt	
Canned & Preserved Fruits & Vegetable Processing	Citrus, Apple & Potatoes	Major Significant Products
Canned & Preserved Seafood Processing	Catfish, Crab, Shrimp & Tuna	Fish Meal, Salmon, Bottom Fish, Sardine, Herring, Clam, Oyster, Scallop, and Abalone
Cement Manufacturing	Cement Manufacturing	
Dairy Product Processing	Dairy Product Processing	
Electroplating	Copper, Nickel, Chrome & Zinc	Precious and Other Metal Plating
Feedlots	Feedlots	
Ferroalloy Manufacturing	Smelting & Slag Processing	Calcium Carbide Electrolytic Ferroalloys
Fertilizer Manufacturing	Basic Fertilizer Chemicals	Formulated Fertilizer
Glass Manufacturing	Insulation Fiberglass Flat Glass	Pressed & Blown Glass
Grain Mills	Grain Processing	Animal Feed, Breakfast Cereal, and Wheat Starch
Inorganic Chemicals Manufacturing	Major Inorganic Products	Significant Inorganic Products
Iron & Steel Manufacturing	Steel Making	Forming & Finishing Foundries
Leather Tanning & Finishing	Leather Tanning & Finishing	
Meat Product & Rendering Processing	Red Meat Processing	Processor Renderer Poultry
Nonferrous Metals Manufacturing	Bauxite Refining Primary Aluminum Smelting Secondary Aluminum Smelting	Zinc Lead  Primary Copper Smelting & Refining Secondary Copper
Organic Chemicals Manufacturing	Major Organic Products	Significant Organic Products
Petroleum Refining	Petroleum Refining	
Phosphate Manufacturing	Phosphorus-Derived Chemicals	Other Non-Fertilizer Phosphate Chemicals
Plastics & Synthetic Materials	Synthetic Resins	Synthetic Polymers Synthetic Resins—Addendum
Pulp, Paper and Paperboard Mills	Unbleached Kraft & Semi-chemical Pulp	Bleached Kraft, Sulfite, Groundwood, Soda, Drink & Non-integrated Paper Mills
Rubber Processing	Tire & Synthetic	Fabricated & Reclaimed Rubber
Soap & Detergent Manufacturing	Soap & Detergent Manufacturing	
Steam Electric Power Plants	Steam Electric Power Plants	
Sugar Processing	Beet Sugar Cane Sugar Refining	Raw Cane Sugar Processing
Textile Mills	Textile Mills	
Timber Products Processing	Plywood, Hardboard & Wood Preserving	Wet Storage, Sawmills, Particleboard & Insulation Board

**Table 2    Group II Industries**

Paint and Ink	Furniture
Converted Paper	Machinery and
Fish Hatcheries	Machinery
Transportation	Products
Asphalt-Paving	Ore Mining and
Auto and Other	Dressing
Laundries	Misc. Chemicals
Water Supply	Misc. Foods and
Coal Mining	Beverages
Mineral Mining	Concrete Products
Petroleum and Gas	Clay and Gypsum
Extraction	Steam Supply

**What industries come under the effluent guidelines program?**

The Act identified a minimum of 28 categories (Group I) of industrial dischargers for which EPA was required to develop effluent limitations guidelines for existing sources, and standards of performance for new sources. In addition, the Act directed EPA to revise this list of categories and thus another 18 categories (Group II) were established.

Because of the diversity of many of the 28 categories of dischargers designated as Group I priority, some of the industries were further divided into Phase I and Phase II segments.

See Tables 1 and 2.

**What's involved in developing guidelines or standards?**

First, some basic technical factors must be considered:

- cost of pollution control
- age of the industrial facilities
- manufacturing processes employed
- environmental impact of pollution controls (other than water quality)
- energy

Because broad differences exist in discharges within each industrial category, EPA developed more than 500 subcategories. Guidelines and standards must be established for each of these subcategories. Studies are made of typical waste loads and of the available treatment and control technologies. The end result is a

comprehensive analysis of the pollutants in discharges and identification of the substances to be controlled.

The entire range of available control technology within each subcategory is identified from the least to the most efficient. Consideration also is given to technologies only in the development or pilot stage.

An engineering analysis is made of each general level of technology to determine costs. The analysis includes estimates for investment, operation, maintenance, and energy. These studies identify the pollution reduction possible at a given cost level. They also provide the basis for an economic analysis of the impact of compliance with the alternative limitations under consideration.

**Where can the data used to develop effluent limitations be found for a specific industry?**

The overall data necessary to establish guidelines and standards for an industrial category are collected and analyzed and published in two major studies—"Development Document for Effluent Limitations Guidelines and New Source Performance Standards" and "Economic Impact Analysis of Effluent Guidelines." The documents for each category are published by EPA for both proposed and final limitations and are released simultaneously with the proposed and final effluent regulations.

**What does the development document include?**

It provides information on the methods used in an industrial category to control pollutants to meet requirements of the Act. It reports the degree of reduction of pollutants in effluent that is attainable under various levels of control technology through 1983 and for new sources. Costs to industry are also estimated.

**What does the economic document include?**

It provides an analysis of the economic impact of compliance with

the limitations guidelines and standards identified in the development document. The focus of the analysis is on impacts to prices, production, employment, the community, industrial growth and foreign trade.

### **Who prepares the documents?**

A mass of data must be obtained and evaluated by EPA before limitations guidelines or standards are proposed by the Agency. EPA has retained consulting contractors to provide studies on the best practicable and best available technology for an industrial category (draft development documents), and studies on the economic impact of the technologies on the category (economic document). EPA works closely with the contractors to provide a day-by-day evaluation of control problems and solutions.

The technical contractor's report is considered to be a draft of the development document. It is subsequently revised by the Agency to become an EPA publication. The economic analysis however, remains a contractor's report and is considered along with any other information available to EPA regarding economic impact.

### **Who reviews the contractors' completed drafts?**

There is intensive review of the contractors' draft development documents both inside and outside EPA.

When the draft development documents are received by EPA, they are distributed immediately to external reviewers for critical analysis. These reviewers include State and territorial water or environmental departments, Federal agencies, public interest groups, environmental groups, and industries and trade associations directly concerned with effluent guidelines development. Comments are normally requested within 30 days. This gives EPA time to consider the comments while preparing proposed rule-making documents.

EPA's review is by staff members and

by the Effluent Standards and Water Quality Information Advisory Committee (ES & WQIAC). The Committee, established under the 1972 Act, and chosen from the scientific community by EPA's Administrator, provides, assesses, and evaluates scientific and technical information on effluent standards and toxic substances.

*The economic document for a category cannot be completed until the cost information in the draft development document has been received and reviewed.* Therefore, the economic studies are not available for review by the public until regulations are actually proposed in the Federal Register. Both the development document limitations and guidelines, and the accompanying analysis are reviewed by other government agencies prior to proposal and promulgation.

This process of internal and external review (see flow chart) is carried on simultaneously to meet the time constraints set forth in the Act.

### **Are the contractors' draft development documents available to the public?**

Yes. They may be inspected at any of EPA's ten Regional Office libraries listed below or at EPA's Public Information Reference Unit in Washington, D.C.

### **Effluent Limitations Guidelines and Standards Development Process**

Contracts awarded  
for technical studies  
and economic  
impact analysis

Prior work with  
industry a major  
factor in contractor  
selection



## EPA Regional Office Libraries

Region I John F. Kennedy Federal Bldg. Boston, MA 02203	Region VI 1600 Patterson St. Dallas, TX 75201
Region II 26 Federal Plaza New York, NY 10007	Region VII 1735 Baltimore Ave. Kansas City, MO 64108
Region III 6th and Walnut Sts. Philadelphia, PA 19106	Region VIII 1860 Lincoln St. Denver, CO 80203
Region IV 1421 Peachtree St., NE Atlanta, GA 30309	Region IX 100 California St. San Francisco, CA 94111
Region V 230 S. Dearborn St. Chicago, IL 60604	Region X 1200 Sixth Ave. Seattle, WA 98101

### What is the next step in establishing guidelines and standards?

The next step is to consider the comments and information received during the comment period and to incorporate consideration of the completed economic impact analysis. After the limitations are accepted as appropriate, the proposed regulation is published in the *Federal Register*. At the same time, development and economic documents are released in support of these proposed guidelines and standards.

### How does the public know when regulations are being proposed or promulgated?

All proposed and promulgated regulations appear in the *Federal*

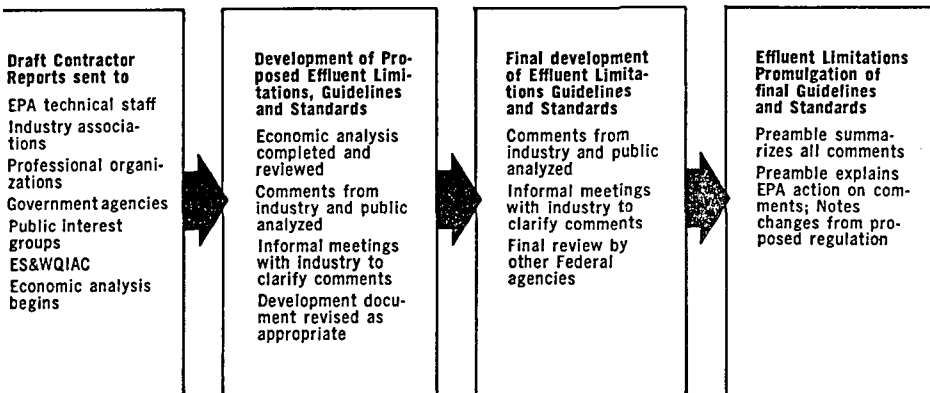
*Register* which provides a uniform system for making regulations and legal notices issued by Federal agencies available to the public. Published daily, Monday through Friday (except holidays), the *Federal Register* is available in most libraries. Individual copies are available at 75 cents an issue from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Subscription rates are \$50 per year, payable in advance.

### How does the Development Document which supports the proposed regulation differ from the contractors' draft Development Document?

The document may differ from the drafts due to modifications made by EPA after reviewing the information and comments received from the internal and external review of the draft. Modifications may concern, particularly, assessment of practicability or availability of technology, and conclusions about effluent limitations guidelines and standards of performance for new sources.

### What is an Economic Analysis document?

The economic document is actually the study submitted to EPA by the contractor. It is not an official EPA document, but has been carefully



reviewed by the agency. It receives the same consideration as the Development Document before and during the proposed rule making process.

### **Are the economic and technical documents available to the public?**

Yes. The reports are routinely sent to the internal and external reviewers and anyone else who has requested to be added to the mailing list for specific proposed reports. EPA will mail copies to others upon request.

To be included in the mailings, write to Distribution Officer, Effluent Guidelines Division (WH-552), EPA, Washington, D.C. 20460. Please indicate the specific documents (economic or development) you want by industrial category. EPA will send these as soon as the reports are available.

After the guidelines and standards are promulgated in the Federal Register, final economic and development documents will be published.

### **How does EPA solicit comments from the public?**

To meet deadlines in the Act and terms of a court order, the notices of proposed rule-making ask that formal public comments be submitted within 30 days of publication in the *Federal Register*. People on the mailing list receive copies of the development and economic documents supporting the proposed regulations. These documents reflect EPA's judgment as to what are the best, workable regulations. However, the documents are based in large part upon the initial draft reports of the contractors.

The comment period is short, but the requirements of a court order issued by the District Court for the District of Columbia compel EPA to develop final regulations as expeditiously as possible. However, all information or comments, including, whenever possible, material received after the deadline, are considered by the Agency and may be

the basis for appropriate amendments to promulgated regulations.

### **What kind of comments does EPA especially invite?**

In addition to soliciting specific comments on the development and economic documents EPA also seeks data and guidance on how to resolve problems identified by the reviewer. For instance, comments that the Agency is acting on inadequate data should include, where possible, any additional appropriate data and should indicate how such data pertain to the development of the regulations. If comments question the approach taken in establishing an effluent limitation *guideline or standard of performance*, EPA solicits suggestions as to what alternative approach should be taken.

Comments on the economic and technical reports, and their recommended guidelines and standards, bring a variety of issues to the Agency's attention prior to the publication of notices of proposed rule-making. Issues identified in this manner can be discussed and their resolutions explained in the notices of proposed rule-making. Unresolved issues are also specified in the notices.

### **How should comments be submitted?**

Comments should be submitted in triplicate to the Distribution Officer, Effluent Guidelines Division (WH-552), EPA, Washington, D.C. 20460.

All comments received before or after publication of the notices of proposed rule-making are available for inspection and copying at EPA's Public Information Reference Unit.

### **Which regulations have been promulgated?**

Regulations for all 28 of the Group I, Phase I, industrial segments and 17 of the 19 Group I, Phase II, industries were promulgated by December 31, 1975. Regulations for the remaining Group I, as well as the Group II categories, were to be promulgated in 1976.

Following is information on which regulations have been proposed or promulgated for the various industries.

### Where can final economic documents be obtained?

Final economic reports are distributed in both paper copy and microfiche by the National Technical Information Service (NTIS), Springfield, Virginia 22151.

Table 5 lists the economic reports presently available through NTIS.

### Where can final development documents be obtained?

Final development documents are submitted for printing at the time promulgated regulations appear in the Federal Register. They are usually

available 10-12 weeks later from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (cite the industrial category, segment name, GPO stock number, and GPO catalog number when ordering).

The final documents will subsequently be available from NTIS, in both paper copy and microfiche (specify the industry, segment, NTIS accession number and the format desired). See Table 6 for a list of development documents currently available through GPO and NTIS.

NOTE: The contractors' reports, proposed development and economic documents, and final development documents are available for *review* in the EPA Regional Office libraries listed on page 7.

**Table 3 Group I**

Group I Industry	Phase I		Phase II	
	Vol. & No. of Federal Register	Date Promulgated	Vol. & No. of Federal Register	Date Promulgated
Asbestos	Vol. 39, #39	2/26/74	Vol. 40, #6	1/9/75
Builders Paper	Vol. 39, #91	5/9/74		
Cement	Vol. 39, #35	2/20/74		
Dairy	Vol. 39, #103	5/28/74		
Electroplating	Vol. 39, #61	3/28/74	Vol. 40, #80	4/24/75**
Feedlots	Vol. 39, #32	2/14/74		
Ferroalloy	Vol. 39, #37	2/22/74	Vol. 40, #37	2/24/75**
Fertilizers	Vol. 39, #68	4/8/74	Vol. 40, #9	1/14/75
Fruits & Vegetables	Vol. 39, #56	3/21/74	Vol. 40, #204	10/21/75**
Glass	Vol. 39, #32	2/14/74	Vol. 40, #11	1/16/75
Glass—Fiberglass	Vol. 39, #15	1/22/74		
Grain	Vol. 39, #55	3/20/74	Vol. 40, #2	1/3/75
Inorganics	Vol. 39, #49	3/12/74	Vol. 40, #100	5/22/75**
Iron & Steel	Vol. 39, #126	6/28/74	*	
Leather	Vol. 39, #69	4/9/74		
Meat	Vol. 39, #41	2/28/74	Vol. 40, #2	1/3/75
Meat—Poultry (Phase II only)			*	
Nonferrous	Vol. 39, #68	4/8/74	Vol. 40, #40	2/27/75**
Organics	Vol. 39, #81	4/25/74	Vol. 41, #2	1/5/76**
Petroleum	Vol. 39, #91	5/9/74		
Phosphates	Vol. 39, #35	2/20/74	Vol. 40, #18	1/27/75**
Plastics & Synthetics	Vol. 39, #67	4/5/74	Vol. 40, #16	1/23/75
Pulp & Paper	Vol. 39, #104	5/29/74	*	
Rubber	Vol. 39, #36	2/21/74	Vol. 40, #7	1/10/75
Seafood	Vol. 39, #124	6/26/74	Vol. 40, #231	12/1/75
Soap & Detergent	Vol. 39, #72	4/12/74		
Steam Electric	Vol. 39, #196	10/8/74		
Sugar—Beet	Vol. 39, #22	1/31/74		
Sugar—Cane	Vol. 39, #55	3/20/74	Vol. 40, #40	2/27/75**
Textiles	Vol. 39, #130	7/5/74		
Timber	Vol. 39, #76	4/18/74	Vol. 40, #11	1/16/75

\*Will have a Phase II segment

\*\*Denotes interim final regulations

## Further Questions?

If you want additional information on the program, wish to be placed on the mailing list for specific proposed background documents, or wish to comment on the proposed regulations, please write:

Distribution Officer  
Effluent Guidelines Division  
(WH-552)  
EPA  
Washington, D.C. 20460

For answers to questions on the technical aspects of the program, write to Director, Effluent Guidelines Division at the above address. In addition, each EPA Regional Office has an Enforcement Division (same addresses as libraries) which can also answer questions concerning effluent guidelines and permits.

## Publications Available

For additional copies of this booklet or free copies of the following, write to:

Public Information Center (PM-215)  
EPA  
Washington, D.C. 20460

*Federal Water Pollution Control Act Amendment of 1972*, Public Law 92-500, 92nd Congress.

*The Federal Water Pollution Control Act Amendments of 1972: HIGHLIGHTS.*

*A Citizen's Guide to Clean Water:* Good introduction to the problem and what can be done to solve it, including citizen action.

*First Things First—A Strategy Against Water Pollution:* General pamphlet outlining EPA's strategy for combating water pollution.

*Areawide Waste Treatment Management Planning:* General pamphlet on an EPA program which calls upon local governments in a particular planning area to work together to find and implement solutions to their common water quality management problems.

Please write to the Water Planning Division (WH-454), EPA, Washington, D.C. 20460 for:

*Water Quality Strategy Paper:* EPA's detailed strategy for combating pollution where it is most serious and for preventing clean water from becoming polluted.

*Guidelines for Areawide Waste Treatment Management:* Describes the essentials of public participation in areawide waste treatment management planning.

Write to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for:

*Toward Cleaner Water: the New Permit Program to Control Water Pollution:* (GPO Stock No. 1973 546-312/140), cost: 50 cents.



**Table 4 Group II**

Group II Industry	Vol. & No. of Federal Register	Date Promulgated
Furniture (timber)	Vol. 40, #106	6/2/75
Paint & Ink Formulating	Vol. 40, #145	7/28/75
Paving & Roofing Materials	Vol. 40, #143	7/24/75
Oil & Gas Extraction	Vol. 40, #179**	9/15/75
Mineral Mining	Vol. 40, #201**	10/16/75
Coal Mining	Vol. 40, #202**	10/17/75
Ore Mining	Vol. 40, #215**	11/6/75

\*\*Denotes interim final regulations

**Table 5 Group I, Phase I Economic Reports**

Industry	Segment	NTIS Accession No.	Papercopy	Microfiche	Available After
Asbestos					5/75
Builders Paper					5/75
Cement		PB-234442/AS	\$4.00	\$1.45	
Dairy					6/75
Electroplating	Copper, Nickel, Chrome & Zinc	PB-236595/AS	\$6.00	\$2.25	
Feedlots					5/75
Ferroalloy	Smelting & Slag	PB-234045/AS	\$4.50	\$1.45	
Fertilizer					5/75
Fruits & Vegetables	Apple, Citrus & Potato Processing	PB-240195/AS	\$7.50	\$2.25	
Glass	Fiberglass Flat Glass	PB-234845/AS	\$3.75	\$1.45	5/75
Grain	Grain Processing	PB-240196/AS	\$7.00	\$2.25	
Inorganics	Major Inorganic Products	PB-234457/AS	\$5.00	\$1.45	
Leather					5/75
Meat					5/75
Nonferrous	Bauxite, Primary Aluminum Smelting Secondary Alum- inum Smelting	PB-239161/AS	\$6.25	\$2.25	
Organics					5/75
Petroleum					5/75
Phosphates					5/75
Plastics & Synthetics					5/75
Pulp & Paper & Builders Paper					5/75
Rubber	Tire & Synthetic	PB-235691/AS	\$3.75	\$2.25	
Seafood	Catfish, Crab, Shrimp, Tuna	PB-234214/AS	\$4.75	\$1.45	
Soap & Detergent					5/75
Steam Electric		PB-239315/AS	\$9.50	\$2.25	
Sugar	Beet Sugar Cane Sugar				5/75 5/75
Textiles					5/75
Timber					5/75

**Table 6 Group I, Phase I Development Documents**

Category	Segment Name	EPA Report Number
Asbestos Manufacturing	Building Construction & Paper	EPA-440/1-74-017-a
Builders Paper & Board Mills	Builders Paper & Roofing Felt	EPA-440/1-74-026-a
Canned & Preserved Fruits & Veg. Processing	Citrus, Apple & Potatoes	EPA-440/1-74-027-a
Canned & Preserved Seafood Processing	Catfish, Crab, Shrimp & Tuna	EPA-440/1-74-020-a
Cement Manufacturing	Cement Manufacturing	EPA-440/1-74-005-a
Dairy Product Processing	Dairy Product Processing	EPA-440/1-74-021-a
Electroplating	Copper, Nickel, Chrome & Zinc	EPA-440/1-74-003-a
Feedlots	Feedlots	EPA-440/1-74-004-a
Ferroalloy Manufacturing	Smelting & Slag Processing	EPA-440/1-74-008-a
Fertilizer Manufacturing	Basic Fertilizer Chem's	EPA-440/1-74-011-a
Glass Manufacturing	Insulation Fiberglass Flat Glass	EPA-440/1-74-001-l EPA-440/1-74-001-c
Grain Mills	Grain Processing	EPA-440/1-74-028-a
Inorganic Chemicals Manuf.	Major Inorganic Prod's	EPA-440/1-74-007-a
Iron & Steel Manufacturing	Steel Making	EPA-440/1-74-024-a
Leather Tanning & Finishing	Leather Tanning & Finishing	EPA-440/1-74-016-a
Meat Product & Rendering Processing	Red Meat Processing	EPA-440/1-74-012-a
Nonferrous Metals Manuf.	Bauxite Refining Primary Aluminum Smelt. Secondary Alum. Smelt.	EPA-440/1-74-019-c EPA-440/1-74-019-c EPA-440/1-74-019-c
Organic Chemicals Manuf.	Major Organic Products	EPA-440/1-74-009-a
Petroleum Refining	Petroleum Refining	EPA-440/1-74-014-a
Phosphate Manufacturing	Phosphorous Derived Chemicals	EPA-440/1-74-006-a
Plastics & Synthetic Materials	Synthetic Resins	EPA-440/1-74-010-a
Pulp, Paper & Paperboard Mills	Unbleached Kraft & Semichemical Pulp	EPA-440/1-74-025-a
Rubber Processing	Tire & Synthetic	EPA-440/1-74-013-a
Soap & Detergent Manuf.	Soap & Detergent Manuf.	EPA-440/1-74-018-a
Steam Electric Powerplants	Steam Electric Power Plants	EPA-440/1-74-029-a
Sugar Processing	Beet Sugar Cane Sugar Refining	EPA-440/1-74-002-l EPA-440/1-74-002-c
Textile Mills	Textile Mills	EPA-440/1-74-022-a
Timber Products Processing	Plywood, Hardboard & Wood Preserving	EPA-440/1-74-023-a

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Price & GPO Stock Number		GPO Catalog Order Number	NTIS Accession Number	NTIS Price Paper Micro	
\$1.70	5501-00827	EP1.8/3:B86	PB-238320/AS	\$5.75	\$2.25
\$1.75	5501-00909	EP1.8/3:B86/2	PB-238076/AS		\$2.25
\$2.45	5501-00790	EP1.8/3:AP5	PB-238649/AS	\$4.95	\$2.25
\$4.50	5501-00920	EP1.8/3:C28	PB-238614/AS	\$7.50	\$2.25
\$1.60	5501-00866	EP1.8/3:C33	PB-238610/AS	\$3.60	\$2.25
\$2.05	5501-00898	EP1.8/3:D14	PB-238835/AS	\$4.55	\$2.25
\$2.40	5501-00816	EP1.8/3:C79	PB-238834/AS	\$4.90	\$2.25
\$3.25	5501-00842	EP1.8/3:F32	PB-238651/AS	\$5.75	\$2.25
\$2.10	5501-00780	EP1.8/3:SM3	PB-238651/AS	\$4.60	\$2.25
\$2.00	5501-00868	EP1.8/3:F41	PB-238652/AS	\$4.00	\$2.25
\$1.50	5501-00781	EP1.8/3:IN7	PB-238078/AS	\$3.50	\$2.25
\$1.65	5501-00814	EP1.8/3:G46			
\$1.75	5501-00844	EP1.8/3:G76	PB-238316/AS	\$3.75	\$2.25
\$3.60	5502-00121	EP1.8/3:IN7/2	PB-238611/AS	\$6.10	\$2.25
\$0.30	5501-00906	EP1.8/3:ST3	PB-238837/AS	\$24.80	\$2.25
\$1.95	5501-00818	EP1.8/3:L48	PB-238648/AS	\$3.95	\$2.25
\$2.20	5501-00843	EP1.8/3:M46	PB-238836/AS	\$4.70	\$2.25
1.45	5500-00118	EP1.8/3:B32	PB-238463/AS	\$3.45	\$2.25
1.80	5501-00817	EP1.8/3:AL8			
1.70	5501-00819	EP1.8/3:AL8/2	PB-238464/AS	\$3.70	\$2.25
3.60	5501-00812	EP1.8/3:OR3	PB-241905/AS	\$10.25	\$2.25
2.75	5501-00912	EP1.8/3:P44	PB-238612/AS	\$5.25	\$2.25
1.90	5503-00078	EP1.8/3:P56	PB-241018/AS	\$6.25	\$2.25
2.65	5501-00815	EP1.8/3:R31	PB-239241/AS	\$5.15	\$2.25
3.45	5501-00910	EP1.8/3:P96	PB-238833/AS	\$5.95	\$2.25
2.25	5501-00885	EP1.8/3:T51	PB-238609/AS	\$4.75	\$2.25
2.35	5501-00867	EP1.8/3:SO1	PB-288613/AS	\$4.85	\$2.25
.90	055-001-01001	EP1.8/3:ST3/2	PB-240853/AS	\$19.25	\$2.25
.00	5500-00117	EP1.8/3:B39	PB-238462/AS	\$4.00	\$2.25
.10	5501-00826	EP1.8/3:C16	PB-238147/AS		\$2.25
.65	5501-00903	EP1.8/3:T29	PB-238832/AS	\$5.15	\$2.25
.30	5501-00853	EP1.8/3:P74	PB-240811/AS	\$9.50	\$2.25

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