

ENVIRONMENTAL PROTECTION AGENCY

[FRL 5527-5]

RIN 2040-AC86

Effluent Guidelines Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Proposed Effluent Guidelines Plan.

SUMMARY: Today's notice announces the Agency's proposed plans for developing new and revised effluent guidelines, which regulate industrial discharges to surface waters and to publicly owned treatment works. Section 304(m) of the Clean Water Act requires EPA to publish a biennial Effluent Guidelines Plan. The Agency requests comment on the proposal and will publish a final plan following the close of the comment period.

DATES: Comments must be received on or before August 2, 1996.

ADDRESSES: Submit comments in writing to: Water Docket Clerk (4101), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The public record for this notice is available for review in the EPA Water Docket, Room 2616 Mall, 401 M Street, SW., Washington, DC. For access to Docket materials, call (202) 260-3027 between 9 a.m. and 3 p.m. for an appointment. The EPA public information regulation (40 CFR Part 2)

provides that a reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Eric Strassler, EPA Engineering and Analysis Division, telephone 202-260-7150.

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- I. Regulated Entities

Today's proposed plan does not contain regulatory requirements and does not provide specific definitions for each industrial category. Entities potentially affected by decisions regarding the final plan are listed below.

Category of entity	Examples of potentially affected entities
Industry	Pulp, Paper and Paperboard; Pesticide Formulating, Packaging and Repackaging; Coastal Oil and Gas Extraction; Centralized Waste Treatment; Pharmaceutical Manufacturing; Metal Products and Machinery; Landfills and Incinerators; Industrial Laundries; Transportation Equipment Cleaning; Iron and Steel Manufacturing; Coal Mining; Feedlots; Hospitals; Ore Mining and Dressing; Glass Manufacturing; Canmaking

To determine whether your facility would be regulated, you should carefully examine the applicability criteria in the appropriate proposed rule (previously published or forthcoming). Citations for previously published proposed rules and schedules for forthcoming proposed rules are provided in Appendix B of today's notice.

II. Legal Authority

Today's notice is published under the authority of section 304(m) of the Clean Water Act, 33 U.S.C. 1314(m), which requires EPA to publish a biennial Effluent Guidelines Plan, schedule review and revision of existing regulations and identify categories of

dischargers to be covered by new regulations.

III. Introduction

A. Purpose of Today's Notice

Today's notice announces the Agency's proposed biennial plan pursuant to sec. 304(m). EPA invites the public to comment on the proposed plan, and following the close of the comment period the Agency will publish a final plan.

B. Overview of Today's Notice

The Agency proposes to develop effluent limitation guidelines and standards ("effluent guidelines") as follows:

- 1. Continue development of 10 rules listed in the 1994 Effluent Guidelines

Plan (59 FR 44234, August 26, 1994). The categories are: Pulp, Paper and Paperboard; Pesticide Chemicals (Formulating, Packaging and Repackaging); Coastal Oil and Gas Extraction; Centralized Waste Treatment; Pharmaceutical Manufacturing; Metal Products and Machinery, Phases 1 and 2; Landfills and Incinerators; Industrial Laundries; and Transportation Equipment Cleaning.

2. Begin development of revised effluent guidelines for the Iron and Steel Manufacturing category.

3. Initiate three preliminary studies to assist in determining whether new or revised rules should be developed for particular categories. Each preliminary

study will generally take approximately two years to complete.

4. Complete preliminary studies on the Photographic Processing and Chemical Formulating and Packaging industries.

5. Plan for development of seven additional effluent guidelines, either new or revised. The point source categories to be covered by these guidelines will be identified in future biennial Effluent Guidelines Plans. EPA's current plan is to begin development of one additional rule in 1996 and two rules each year from 1997 to 1999, with proposed rules published between 1998 and 2001, and final action taken between 2000 and 2003 respectively.

IV. Effluent Guidelines Program Background

A. Statutory Framework

The Federal Water Pollution Control Act (FWPCA) of 1972 (Pub. L. 92-500, Oct. 18, 1972) (the "Act") established a program to restore and maintain the integrity of the nation's waters. To implement the Act, Congress directed EPA to issue effluent limitation guidelines, pretreatment standards, and new source performance standards for industrial dischargers. These regulations were to be based principally on the degree of effluent reduction attainable through the application of control technologies.

The 1977 amendments to the FWPCA, known as the Clean Water Act Amendments (Pub. L. 95-217, Dec. 27, 1977) (CWA), added an additional level of control for conventional pollutants such as biochemical oxygen demand (BOD) and total suspended solids (TSS), and stressed additional control of 65 toxic compounds or classes of compounds (from which EPA later developed a list of 126 specific "priority pollutants"). To further strengthen the toxics control program, sec. 304(e), added by the 1977 amendments, authorized the Administrator to establish management practices to control toxic and hazardous pollutants in plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage.

The effluent guidelines promulgated by EPA reflect the several levels of regulatory stringency specified in the Act, and they also focus on different types of pollutants. Section 301(b)(1)(A) directs the achievement of effluent limitations requiring application of best practicable control technology currently available (BPT). In general, effluent limitations based on BPT represent the average of the best treatment technology

performance for an industrial category. For conventional pollutants listed under sec. 304(a)(4), sec. 301(b)(2)(E) directs the achievement of effluent limitations based on the performance of best conventional pollutant control technology (BCT). The Act requires that BCT limitations be established in light of a two-part "cost-reasonableness" test. The test, which assesses the relative costs of conventional pollutant removals, is described in detail in the Federal Register notice promulgating the final BCT rule on July 9, 1986 (51 FR 24974).

Both BPT and BCT regulations apply only to direct dischargers, i.e., those facilities that discharge directly into waters of the United States. In general, regulations are not developed to control conventional pollutants discharged by indirect dischargers because the POTWs receiving those wastes normally provide adequate treatment of these types of pollutants or they can be adequately controlled through local pretreatment limits.

For the toxic pollutants listed in sec. 307(a), and for nonconventional pollutants, secs. 301(b)(2)(A), (C), (D) and (F) direct the achievement of effluent limitations requiring application of best available technology economically achievable (BAT). Effluent limitations based on BAT are to represent at a minimum the best control technology performance in the industrial category that is technologically and economically achievable.

In addition to limitations for existing direct dischargers, EPA also establishes new source performance standards (NSPS) under sec. 306 of the Act, based on the best available demonstrated control technology, processes operating methods, or other alternatives. NSPS apply to new direct dischargers. Generally the NSPS limitations are to be as stringent, or more stringent than BAT limitations for existing sources within the industry category or subcategory.

Although the limitations are based on the performance capability of particular control technologies, including in some cases in-process controls, dischargers may meet their requirements using whatever combination of control methods they choose, such as manufacturing process or equipment changes, product substitution, and water re-use and recycling. The limitations and standards are implemented in permits issued through the National Pollutant Discharge Elimination System (NPDES) pursuant to sec. 402 of the Act for point sources discharging directly to the waters of the United States.

Section 402 of the CWA provides for the issuance of permits to direct dischargers under NPDES. These permits, which are required by sec. 301, are issued either by EPA or by a State agency approved to administer the NPDES program. Individual NPDES permits must incorporate applicable technology-based limitations contained in guidelines and standards for the industrial category in question. Where EPA has not promulgated applicable technology-based effluent guidelines for an industry, sec. 402(a)(1)(B) provides that the permit must incorporate such conditions as the Administrator determines are necessary to carry out the provisions of the Act. In other words, the permit writer uses best professional judgment (BPJ) to establish technology-based limitations for the dischargers.

Indirect dischargers are regulated by the general pretreatment regulations (40 CFR Part 403), local discharge limits developed pursuant to Part 403, and categorical pretreatment standards for new and existing sources (PSNS and PSES) covering specific industrial categories. These categorical standards under sections 307(b) and (c) apply to the discharge of pollutants from non-domestic sources which interfere with or pass through publicly owned treatment works (POTWs), and are enforced by POTWs or by State or Federal authorities. The categorical pretreatment standards for existing sources covering specific industries are generally analogous to the BAT limitations imposed on direct dischargers. The standards for new sources are generally analogous to NSPS.

To ensure that effluent guidelines remain current with the state of the industry and with available control technologies, section 304(b) of the Act provides that EPA shall revise the effluent guidelines at least annually if appropriate. In addition, section 301(d) provides that EPA shall review and if appropriate, revise any effluent limitation required by section 301(b)(2).

B. Components of an Effluent Guideline Regulation

The principal components of effluent guideline regulations are numerical wastewater discharge limitations controlling specified pollutants for a given industry. These are typically concentration-based limits (specified in units such as milligrams of pollutant per liter of water) or production-based mass limits (specified in units such as milligrams of pollutant per unit of production). Numerical limits also cover parameters such as pH and temperature.

A guideline often subcategorizes an industry based on differences in raw materials, manufacturing processes, characteristics of the wastewaters, or type of product manufactured; in some cases, non-water quality environmental impacts or other appropriate factors that justify the imposition of specialized requirements on the subcategorized facilities are used as a basis. EPA develops a set of effluent limitations for each category or subcategory at each level of control (BPT, BAT, etc.) that is addressed in the guideline.

A guideline also may prescribe Best Management Practices ("BMPs") in addition to or in lieu of numerical limits. BMPs may include, for example, requirements addressing the minimization or prevention of storm water runoff, plant maintenance schedules and requirements addressing the training of plant personnel.

C. Development of Effluent Guideline Regulations

EPA has accumulated substantial experience and expertise in the course of preparing 51 effluent guidelines. This section of the notice summarizes the various tasks which the Agency typically undertakes in an effluent guideline rulemaking.

EPA begins work on an effluent guideline rulemaking project by tentatively defining the scope and dimensions of the industry category. The Agency determines the size of the category as it has been defined, using all available sources of information. Given the diversity of regulatory categories, no single source suffices to establish size. At various times, EPA has used one or more of the following sources: standard published sources, information available through trade associations, data purchased from the Dun and Bradstreet, Inc. data base, other publicly available data bases, U.S. Census Bureau data, other U.S. Government information, and any available EPA data base. If a category is very large and/or diverse, the Agency will determine whether it can be broken down into appropriate categories or subcategories. If more than one subcategory can be identified, the Agency may need to establish priorities for regulation.

EPA works with interested stakeholders early in the regulation development process. State and local regulatory officials familiar with the industry are consulted, and business associations and citizen groups are also invited to share information.

Regulatory information about industry categories is obtained by EPA largely through its survey questionnaires, site visits and wastewater sampling. Survey

questionnaires solicit detailed information necessary to assess the statutory rulemaking factors (particularly technological and economic achievability of available controls), water use, production processes, and wastewater treatment and disposal practices. A significant portion of the Agency's questionnaires typically seek information necessary to assess the economic achievability of a prospective regulation.

Generally, the Agency defines its site visits and wastewater sampling effort based on information received in response to the questionnaires. While the questionnaire provides information about production processes, water uses and, in general terms, what is found in the industry's wastewater, on-site sampling and detailed monitoring data are used to characterize the pollutants found in discharges. Site visits are also used to assess manufacturing processes, wastewater generation, pollutant control technologies, pollution prevention opportunities (e.g., process changes), and potential non-water quality impacts of effluent guidelines (i.e., air emissions, sludge generation, energy usage).

In developing a list of pollutants of concern for an industry, EPA initially will study wastewater samples for all pollutants that can be measured by recognized analytical methods.

Currently over 457 pollutants or analytes can be measured by these methods. This includes the subset of 126 pollutants known as "priority" pollutants developed pursuant to CWA sec. 307(a). EPA will develop new analytical methods to cover additional pollutants as necessary. For example, the Agency has developed new methods for use in the Pesticides, Pulp and Paper, Pharmaceuticals, and Offshore Oil and Gas effluent guidelines. (EPA generally proposes any new methods for public comment concurrently with the proposed rule.)

Most of the effluent sampling and analysis that has been conducted specifically to support effluent guideline regulations promulgated to date has been conducted by EPA. On occasion, however, these activities have been pursued on a cooperative basis with industry parties. For example, EPA and numerous pulp and paper manufacturers participated in cooperative efforts to sample and analyze effluent, wastewater treatment sludge, and pulp from domestic mills that bleach chemical pulp in their production processes.

EPA conducts engineering and statistical analyses of the technical data to develop control and treatment options for the pollutants of concern,

and the projected costs for these options. The Agency considers the costing information and economic data gathered from the survey and other sources in its economic impact analysis, and then selects one or more of the options as the basis for a rulemaking proposal. It also develops assessments of the environmental impact of the industry discharges, and may conduct a regulatory impact analysis as well.

The Regulatory Flexibility Act of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA) (Title III of Pub.L. 104-121, March 29, 1996), requires that EPA conduct regulatory flexibility analyses for rules which have a significant impact on a substantial number of small entities. These analyses are to assess the impact of the rule on small entities and consider alternative ways of reducing those impacts. Section 344 of SBREFA also requires EPA to organize a "small business advocacy review panel" for each rule where a regulatory flexibility analysis is required.

Prior to publishing a proposed rule, EPA usually conducts a public meeting to discuss the Agency's findings and describe the general outlines of the rule. Following publication, a hearing is conducted during the public comment period, and supplemental notices of new data may be published, if appropriate.

The Agency's outreach efforts to improve the regulatory development process have involved some industries subject to effluent guidelines. One such special effort is the Common Sense Initiative (CSI), a committee established under the Federal Advisory Committee Act (FACA)(Pub.L. 92-463). Through CSI, EPA has brought together federal, state, and local government representatives, environmental interest and environmental justice leaders, labor representatives, and industry executives to examine the full range of environmental requirements affecting six pilot industries. These six teams are exploring comprehensive strategies for environmental protection which include regulatory and voluntary approaches on which all can agree. Two of the six teams, Metal Finishing and Iron and Steel, are discussing effluent guidelines issues as well as other regulations. EPA looks forward to receiving recommendations from these CSI teams.

D. NRDC Litigation and Consent Decree

EPA has developed today's proposed Effluent Guidelines Plan pursuant to a consent decree in *NRDC et al v. Browner* (D.D.C. Civ. No. 89-2980, January 31, 1992, as modified). The Decree commits EPA to schedules for proposing and

taking final action on effluent guidelines, and also for conducting preliminary studies. Some of the industry categories to be regulated are specified in the Decree. For the remaining required rulemakings,

EPA retains the discretion to select guidelines for development based on Agency priorities.

EPA will use the results of the preliminary studies and other information (such as public comments and recommendations from state and local governments) to select industries for future regulation. The Decree requires the Agency to study eleven industries.

The Decree also required EPA to establish the Effluent Guidelines Task Force, an advisory committee, to formulate recommendations for improvements to the effluent guidelines program. The Agency created the Task Force in 1992. The Task Force has held several public meetings and has begun to present recommendations to the EPA Administrator. The work of the Task Force is discussed further in Section V of today's notice.

Since 1992, EPA and NRDC have agreed to several modifications of the Decree consisting of deadline extensions for certain rules.

V. Today's Proposed Effluent Guidelines Plan

A. Effluent Guidelines Currently Under Development

1. Schedule for Ongoing Rulemaking

The Agency is currently in the process of developing new or revised effluent guidelines for 10 categories. (These categories were listed in the Agency's 1994 Effluent Guidelines Plan.) The categories and actual or Consent Decree dates for proposal and final action are set forth in Table 1.

TABLE 1.—EFFLUENT GUIDELINES CURRENTLY UNDER DEVELOPMENT

Category	Proposal	Final action
	Consent decree or actual	Consent decree
Pulp, Paper and Paperboard	12/17/93	(1)
Pesticide Formulating, Packaging, and Repackaging	4/14/94	9/96
Centralized Waste Treatment	1/27/95	² 9/96
Coastal Oil and Gas Extraction	2/17/95	10/96
Pharmaceutical Manufacturing	5/2/95	² 8/96
Metal Products and Machinery, Phase	15/30/95	^{2,3} 9/96
Industrial Laundries	² 12/96	² 12/98
Transportation Equipment Cleaning	² 12/96	² 12/98
Landfills and Incinerators	² 3/97	² 3/99
Metal Products and Machinery, Phase 2	³ 12/97	^{2,3} 12/99

¹ The Pulp, Paper and Paperboard rulemaking is not covered by the January 31, 1992 consent decree.

² EPA is discussing extensions to Consent Decree dates with NRDC.

³ EPA is considering merging Phases 1 and 2 of the Metal Products and Machinery rule. See discussion below.

The Agency has only recently received funding for Fiscal Year 1996, and funding restrictions may affect rulemaking schedules. EPA is discussing extensions to all the Consent Decree dates with NRDC, for both budgetary reasons and specific policy, technical and administrative issues in some regulations.

2. Changes in Rulemaking Scope, Schedules and/or Organization

a. Metal Products and Machinery.

EPA is considering merging Phases 1 and 2 of the Metal Products and Machinery rule. The Phase 1 proposed rule, covering seven industry sectors, was published on May 30, 1995 (60 FR 28209). Such a merger would mean that EPA would not proceed with a final rule for Phase 1, but would issue a new proposal covering both phases (15 sectors total) and promulgate a final rule covering both phases.

There are several reasons why a single final rule for this category would be desirable:

- The same basis and applied metals as well as the same manufacturing and wastewater treatment unit operations typically are used throughout both

phases of the MP&M category. The classification of a facility as MP&M Phase 1 or Phase 2 should not affect its ability to treat its wastewater to a given level.

- The complexities of having different effluent limits across the two phases (for the same pollutant and level of control) would be avoided. Having one set of effluent limits for the MP&M category greatly simplifies implementation for POTWs and compliance for facilities.

- Merging these rules would allow EPA to use POTW survey data being collected for Phase 2 to develop more precise estimates of the administrative burden for all sectors, and to consider aggregated environmental impacts and compliance costs.

- Opportunities to explore alternative permitting requirements such as BMPs would be enhanced.

- The additional time needed for a combined rule would allow more extensive stakeholder involvement. For example, members of the Metal Finishing CSI team have expressed interest in working with EPA on obtaining additional data, and POTWs and NPDES permit authorities will be

able to provide more substantive data on implementation issues.

EPA invites comment on the merits of combining the two phases into one rule.

b. Pulp, Paper and Paperboard. EPA issued the proposed Pulp, Paper and Paperboard "Cluster Rules", covering both effluent guidelines and National Emission Standards for Hazardous Air Pollutants (NESHAP), on December 17, 1993 (40 CFR part 430, 58 FR 66078). The proposed effluent guidelines were organized into 12 subcategories.

EPA plans to promulgate final effluent guidelines for two subcategories later this year: Bleached Papergrade Kraft and Soda (proposed Subpart B), and Papergrade Sulfite (proposed Subpart E). At least eight of the remaining subcategories will be addressed in a final rule expected in 1997: Unbleached Kraft; Semi-Chemical; Mechanical Pulp; Non-Wood Chemical Pulp; Secondary Fiber Deink; Secondary Fiber Non-Deink; Fine and Lightweight Papers from Purchased Pulp; Tissue, Filter, Non-Woven, and Paperboard from Purchased Pulp (proposed Subparts C, F, G, H, I, J, K and L, respectively). Two remaining subcategories, Dissolving Kraft (proposed Subpart A) and

Dissolving Sulfite (proposed Subpart D), will be addressed in a subsequent rule.

c. Pharmaceutical Manufacturing.

EPA published a proposed rule for the Pharmaceutical Manufacturing Category on May 2, 1995 (60 FR 21592). In that notice, the Agency stated that it is required by the Clean Air Act Amendments of 1990 (CAAA) to promulgate NESHAP regulations by 1997; no NESHAP regulations were proposed along with the water regulations.

In developing the proposed effluent guidelines and standards, EPA coordinated its efforts to make sure that the rule would be consistent, within the constraints of the governing statutes, with the forthcoming air emissions standards. The Agency's analysis of industry wastewater showed a substantial portion consists of volatile organic compounds which pose a risk to human health through increased exposure to carcinogens and increased exposure to systemic toxicants from atmospheric exposure.

The Agency intends to propose the NESHAP in November 1996, and promulgate the standards in November 1997. The current Consent Decree for effluent guidelines requires promulgation for the pharmaceutical industry by August 1996. While EPA's original intent was to issue separate air and water rules utilizing a common technology basis, the Agency is considering the merits of jointly promulgating the air and water regulations by the 1997 CAAA deadline. The Agency believes that a single promulgation of industry standards will be beneficial in terms of consistency and clarity, and will result in more integrated multi media regulatory controls. EPA also believes that these benefits would outweigh benefits that might be obtained from a slightly earlier promulgation of the effluent guidelines alone.

EPA invites public comment on the merits of simultaneous promulgation of air and water standards for this industry.

d. Transportation Equipment

Cleaning. EPA began development of effluent guidelines for the Transportation Equipment Cleaning industry assuming that the scope would include effluent generated from the interior cleaning of tank trucks, rail tank cars, and tank barges, and the exterior cleaning and de-icing of aircraft. However, as a result of data collection and analysis, the Agency has decided to limit the scope of the rule to effluent generated from tank and container interior cleaning.

Last year EPA decided to exclude aircraft exterior cleaning and de-icing from the current effluent guidelines development effort because of other Agency requirements recently promulgated under the stormwater program (60 FR 51215, September 29, 1995). New stormwater permits applicable to airports require implementation of pollution prevention plans to control stormwater discharges. EPA anticipates that the stormwater permit program will reduce, and may eliminate the need for a specific effluent guideline covering these discharges.

The Agency will track the effectiveness of stormwater pollution prevention efforts to control deicing discharges and other airport stormwater runoff and decide later if an effluent guideline is necessary for aircraft exterior cleaning and de-icing.

B. Process for Selection of New Effluent Guideline Regulations

Section 304(m) does not specify criteria that the Agency should use to select categories for regulation by effluent guidelines. For the first Effluent Guidelines Plan, published January 2, 1990 (55 FR 80), EPA listed criteria it had used to select categories. The 1992 consent decree, while specifying some of the categories to be regulated, allows the Agency flexibility in selecting future categories for regulation, and does not specify selection criteria. Therefore EPA intends to continue to use selection criteria such as those listed in the 1990 plan.

1. Selection Criteria and Data Sources

a. Selection Criteria. EPA considers three kinds of criteria for selection of categories: environmental factors, utility to states and POTWs, and economic impacts. The environmental factors allow the Agency to compare the discharges of various categories to approximate risk to human health and the environment. The specific factors used have included:

- Total priority pollutants discharged (lbs/day).
- Total pollutants discharged (lbs/day).
- Total priority toxic pounds-equivalent discharged (lbs/day).
- Number of carcinogens present in discharges.
- Number of facilities discharging to water quality-impaired receiving waters.
- Number of documented cases of sediment contamination.

Data for all of the above factors may not be available for all of the categories under consideration. EPA has found that an estimate of the total priority pollutants discharged is usually

available for each category, and can be used to calculate the total priority toxic pounds-equivalent discharged. These have been among the most useful indicators for selecting categories for effluent guidelines. The toxic pounds-equivalent (developed for most of the 126 priority pollutants and hundreds of nonconventional pollutants) are calculated using the mass loading of a pollutant (measured in pounds), multiplied by a weighting factor for each pollutant based on toxicity and potential for bioaccumulation. The individual values are then summed to provide the category value.

The second broad criterion EPA uses in selecting industries for development of effluent guidelines is the "utility" or "usefulness" of the regulation. This factor reflects the fact that, even in the absence of a national effluent guideline, a discharger of pollutants into waters of the United States must obtain an NPDES permit incorporating technology-based effluent limits. Permit writers at facilities not covered by national guidelines are directed to use Best Professional Judgment in determining what technology-based limits are appropriate. (A roughly analogous situation exists with respect to the development of "local limits" for those facilities discharging into POTWs). At some facilities, however, development of BPJ permits by individual permit writers may be especially difficult due to the complexity of wastestreams, presence of pollutants with poorly understood treatability characteristics, or other factors. National effluent guidelines may be especially appropriate for such facilities and the categories of which they are a part. Promulgation of new and revised categorical pretreatment standards was the first recommendation in "National Pretreatment Program: Report to Congress" (EPA 21W-4004, July 1991).

In assessing the utility or usefulness of a national effluent guideline, EPA typically looks at a variety of factors. Among these are:

- Average priority pollutants discharged per facility;
- Average priority toxic pounds-equivalent discharged per facility;
- Number of discharging facilities.

The number of priority pollutants discharged per facility and the toxic pounds-equivalent levels are considered as relative indicators of plant complexity. The number of discharging facilities signifies the greater impact of a guideline on a large-population category, in reducing permit writing workload and implementing permit limitations on a timely basis.

The economic impact factors consist of cost and economic achievability of additional controls, and investment cycle. The cost and economic achievability factor is an estimate based on the Agency's projection of what the "best available technology" would be in a new or revised regulation, and the impacts of such costs on the industry. The investment cycle factor is a consideration of the timing of an industry's capital investments in equipment. This is based on an assumption that if there is a periodic equipment replacement cycle for an industry, the economic impact of a new or revised regulation may be less if the compliance period coincides with the replacement cycle. These economic factors are difficult to estimate in the absence of detailed questionnaire data and other information that are gathered during a regulation development project, but EPA attempts to assemble some economic projections during its preliminary studies.

These criteria are groups of factors that the Agency considers and weighs in setting rulemaking priorities. The criteria can not be applied mechanically. In applying the criteria and selecting categories of dischargers for the preparation of new or revised guidelines, the Agency uses considerable judgment grounded in its expertise in the regulation of the discharge of pollutants and the administration of the Clean Water Act and other authorities that address pollution of the nation's waters.

The Effluent Guidelines Task Force has developed recommendations on criteria for selecting industries for preliminary studies. The recommendations are discussed in section V below.

b. Data Sources. The Agency evaluates which categories should be subject to new or revised effluent guidelines using the following sources of information:

- Recommendations from NPDES permit writers in its own regional offices and State agencies.
- Recommendations from POTWs and the Association of Metropolitan Sewerage Agencies (AMSA).
- Preliminary studies of industries, which are discussed further in section IV.C of today's notice.
- Rulemaking records from existing effluent guidelines, which document unresolved issues from past rulemaking activity for some categories.
- Other EPA reports, such as the annual Toxic Release Inventory (TRI), "An Overview of Sediment Quality in the United States" (EPA 905/9-88-002, June 1987), and "National Sediment

Contaminant Point Source Inventory: Analysis of Facility Release Data" (Draft, May 1996).

- Reviews of variance requests and petitions.
- Public comments.

EPA continues to rely on these data sources for effluent guidelines planning. The Effluent Guidelines Task Force has developed recommendations on use of data sources for selecting industries. These recommendations are discussed below.

2. New Rulemaking Activities

The 1992 consent decree requires that EPA begin rulemaking on two categories in 1996, and start work on two more in 1997.

a. Iron and Steel Manufacturing. EPA has decided to develop revisions for the Iron and Steel Manufacturing category (40 CFR part 420). This decision is based on consideration of a preliminary data summary on the category recently prepared by the Agency. Initial development of a proposed rule will begin later this year, with proposal scheduled for December 2000 and promulgation scheduled for December 2002. The preliminary data summary is discussed below in section IV.C.1.

b. Other Rules. EPA has not yet selected additional rulemaking projects. EPA is not proposing specific industrial categories for selection in today's notice. However, based on the above discussion of data sources, the Agency may choose the next categories from the following list:

- Petroleum Refining.
- Textile Mills.
- Inorganic Chemicals.
- Steam Electric Power Generating.
- Photographic Processing.
- Chemical Formulators and

Packagers.

• Other categories being considered for preliminary studies. Recent, ongoing and future preliminary studies are discussed briefly in Section IV.C of today's notice. The public is invited to comment on these categories, as well as recommending other categories for development of new or revised effluent guidelines.

C. Preliminary Studies

The purpose of a Preliminary Study is to indicate whether and to what extent an industry discharges toxic and nonconventional pollutants, and to provide a basis for comparison with other industries for purposes of assigning priorities for regulation. The results of a Preliminary Study for an industry are published in a "Preliminary Data Summary." The Preliminary Data Summary presents a

synopsis of recent technical and economic information on a category of dischargers. The Preliminary Data Summaries are not used directly as a basis for rulemaking, but are used in the Agency's determination of which categories most require preparation of new or revised effluent guidelines. (They also may be expanded to become guidance documents for NPDES permit writers and POTWs.)

A Preliminary Study typically collects data on the following:

- The products manufactured and/or services provided by an industry;
- Number, types and geographic location of facilities;
- Destination of discharges (directly to surface waters, indirectly to POTWs, or both);
- Characterization of the wastewater discharges and identification of pollutants present in the wastestreams (e.g., mean concentrations of pollutants, wastewater volumes, mass loadings);
- Sampling and analytical methods employed to ascertain the presence and concentration of pollutants in the wastewater;
- Source reduction, recycling and pollution control technologies in use and potentially applicable to the industry;
- Non-water quality environmental impacts associated with wastewater treatment in the industry (e.g., air emissions, wastewater treatment sludges, and other wastes including hazardous wastes);
- Cost of control technologies in place and cost estimates for additional controls;
- Cost-effectiveness of reduction of toxic and nonconventional pollutants;
- Estimates of water quality impacts of discharges within the subject industry;
- Economic assessment (current financial condition of firms in the industry, industry expansion or reduction trends, size characterization of firms, impact of estimated treatment costs on representative facilities).

The type and level of detail of information varies among the Preliminary Data Summaries, depending on the data available to the Agency when each document is prepared and whether the industry is covered by an existing effluent guideline. For example, some of the Summaries have comprehensive, primary data on the number and location of the discharging facilities while others contain estimates drawn from secondary data sources. However, the Summaries represent the Agency's best characterization of industries at the time the summaries are compiled. As additional data are

acquired, they are factored into the evaluation process. Consequently, the Preliminary Data Summaries are also subject to revision. The Agency has made the Summaries available to the public and intends to continue to do so.

1. Recently Completed Studies

a. Petroleum Refining. The BAT regulations for the Petroleum Refining category were promulgated in 1982 at 40 CFR part 419. The preliminary data summary, completed in 1994, compared data collected by EPA in 1992 and 1993 with data collected for the 1982 rule in the late 1970s.

Historically, U.S. petroleum refineries have been large water users. The industry has changed significantly since the previous rulemaking with regard to patterns of water usage and product formulations. Many of the refineries studied use well below 50 percent of the flows predicted by the Agency's 1982 BPT and BAT flow models, with some refineries as low as 15 percent of their water use rates predicted by the BPT flow model. (The BAT regulations did not require any further flow reductions; however, as a result of litigation, the 1986 amendment to BAT and NSPS incorporated additional flow reduction as part of the basis for limitations for phenol and total chromium.)

Refineries have modified product formulations such as gasoline to comply with Clean Air Act requirements covering volatile organic compounds and lead. Such manufacturing process changes have led to modifications of wastewater collection systems, which may still be underway at some facilities.

A summary of the treatment technologies that are identified as currently in place is presented in the report. Of the 27 refineries studied, 20 are direct dischargers and 7 are indirect dischargers. All of the 20 direct discharging refineries have some form of biological treatment. Three have sand filtration and one facility has an in-plant activated carbon system in addition to biological treatment.

A summary of the effluent data collected from six refineries visited as part of this study compares the pollutants covered by BPT with the concentrations used as a basis to develop the BPT limitations in 1974. Effluent concentration data are also summarized for a number of other pollutants, including pollutants covered by the current effluent guidelines. These data were obtained from the following sources:

- Average concentration data (over a one year period) collected during Environment Canada's "Seven Refineries Study" conducted in 1989;

- Long term average data collected from seven U.S. refineries during the Canadian study;

- EPA's Permit Compliance System (PCS) covering 138 direct discharging refineries for 1992.

A preliminary assessment of the pollutant loadings and potential water quality impacts of discharges from petroleum refining facilities to surface waters and POTWs, using readily available data and information sources on refinery wastewater volume and constituents, annual loadings and average concentration, are estimated in the summary. In addition, potential aquatic life and human health impacts are summarized based on a review of documented environmental impacts and a review of the physical-chemical properties and toxicity of pollutants associated with wastewater discharges from the petroleum refining industry.

EPA's categorization of the 98 pollutants of interest, based on their fate and impact, indicated that approximately one quarter of the pollutants exhibit high or moderate acute toxicity to aquatic life. EPA classifies 23 of the pollutants as potential carcinogens, while 52 are recognized as human systemic toxicants. Of the pollutants of concern, 41 have EPA-assigned concentration limits for drinking water protection. Approximately half of the pollutants are expected to biodegrade fast or moderately fast in oxygenated water. However, several highly to moderately toxic pollutants are resistant to biodegradation or only slowly biodegrade. Whole effluent toxicity (WET) tests done at 47 petroleum refining facilities in Texas, Louisiana, and Oklahoma showed approximately 40 percent failed at least one WET test for acute, chronic, or sublethal effects. Tests conducted at five refineries in the San Francisco Bay region were in compliance with chronic WET test requirements. Twenty petroleum refining facilities are identified by States as point sources impairing (or contributing to impairment of) water quality and are included on their CWA Section 304(l) "Short List", which identifies facilities discharging to impaired water bodies. Three cases of sediment contamination are identified with petroleum refineries based on a 1987 report.

b. Metal Finishing. The Metal Finishing regulations were promulgated in 1983 at 40 CFR part 433. The preliminary data summary, completed in 1994, briefly summarized the Metal Finishing regulations and a related category, Electroplating, promulgated in 1981 at 40 CFR part 413. The summary

also discussed then-current efforts in the development of the Metal Products and Machinery (MP&M) rule. Because the MP&M rule was expected to significantly overlap in coverage with the Metal Finishing rule, the preliminary data summary deferred additional technical, economic and environmental assessment of the industry.

c. Textile Mills. The Textile Mills regulations were promulgated in 1982 at 40 CFR part 410. EPA completed its study of the industry in 1995. The numbers of establishments engaged in the manufacture of textile products were estimated at nearly 6,000.

Approximately 35 to 50 percent are engaged in wet processing (dyeing, finishing, printing and coating), and at least 90 percent of these sources discharge their process wastewater to POTWs. Water conservation programs developed by textile facilities have reduced the total volume of wastewater discharged through more efficient use of process water. Compared with 1980, the industry in 1993 averaged 22 percent less water per pound of fiber processed. A survey of POTWs afforded a review of the pretreatment technologies and innovative pollution prevention techniques that are currently being employed by textile users of POTWs.

Pollutant parameters in textile process wastewater were characterized before and after treatment. Available data indicated: (1) Few organic priority pollutants were identified consistently and, when detected, were quantified at very low concentrations (less than 100 ppb); and (2) metal parameters consistently detected at low levels include: copper, chromium, and zinc. At textile operations using metallized dyes, copper, chromium or nickel are often chelated by organic ligands to form water-soluble metal complexes. While their solubility limits the removal of such metal complexes during biological treatment, complexation also suppresses the immediate and subsequent bioavailability (toxicity) of metal species in the treated wastewater.

Although most textile facilities engaged in wet processing discharge their wastewater to POTWs, a survey of POTWs with textile users did not identify any general operational problems that could be related to the lack of categorical pretreatment standards for this industry. In the absence of categorical pretreatment standards, each POTW surveyed has developed local limits for those parameters it has determined must be controlled to assure compliance with its own NPDES permit.

d. Inorganic Chemicals. The Inorganic Chemicals regulations were promulgated in 1982 (Phase 1) and 1984 (Phase 2) at 40 CFR part 415. EPA completed its study of the industry in 1994. EPA identified approximately 51 chlor-alkali facilities, 47 inorganic pigment facilities, 140 industrial gas facilities, and 422 other inorganic chemical manufacturing facilities. These are believed to represent nearly complete coverage of this category in the United States. Inorganic chemicals are mostly used by major manufacturing industries to produce automobiles, steel, paper, petroleum products, and housing materials.

EPA identified 30 inorganic pollutants and their compounds (13 priority and 17 nonconventional) as pollutants of interest in the wastewater discharges from inorganic chemical manufacturing facilities. These include 15 metals, one metal oxide, two non-metallic elements, five inorganic acids, and seven other inorganic compounds. An analysis of 1992 data from PCS indicates that permit limits for copper and zinc are exceeded most frequently of the 12 metals examined. A chemical load analysis of the data shows that zinc represents the vast majority of total discharge quantity (about 70 percent) followed by chromium and nickel. A one-year chemical load analysis of surface water releases and transfers to POTWs of inorganic chemicals using 1992 TRI data shows that 5.4 million pounds are being released to surface waters and 27.1 million pounds are being transferred to POTWs. Ammonia, ammonium nitrate and ammonium sulfate represent the vast majority of total releases, with ammonia being reported most frequently. Mercury was the most frequently reported metal in discharges from the 1992 TRI facilities. The total discharge of priority pollutants from the Inorganic Chemicals Manufacturing Category is estimated at 0.51 million pounds per year.

EPA's categorization of the 30 pollutants of interest, based on their potential environmental fate and impact, indicates that one-third of the pollutants (10 of 30), primarily metals in their elemental form, are highly toxic to aquatic life. The Agency has set drinking water maximum contaminant level standards for approximately one-third of the pollutants (11 of 30), and about half (16 of 30) have been identified as human systemic toxicants. EPA classifies arsenic, cadmium, and lead as Class A, B1, and B2 carcinogens, respectively. Calculated toxic weighted loads, based on toxicity and bioaccumulation potential, indicate that approximately 40 percent of the

weighted surface water releases are from priority pollutants and approximately 30 percent of POTW transfers are from priority pollutants. States, in developing lists of point sources impairing water quality under sec. 304(l), identified 27 inorganic chemical manufacturing facilities. Inorganic chemical manufacturing ranks first among 40 industrial categories as a source of potential sediment contaminants in a 1995 draft EPA report ("National Sediment Contaminant Point Source Inventory: Analysis of Release Data for 1992", EPA Office of Science and Technology, May 1995 draft). EPA also reports 12 cases of possible sediment contamination associated with inorganic chemical manufacturing.

e. Steam Electric Power Generating. The Steam Electric Power Generating regulations were promulgated in 1982 at 40 CFR part 423. The Preliminary Data Summary for the Steam Electric Point Source Category was completed in 1995. The 1982 Guidelines and Standards are currently being applied to about 900 utility steam electric facilities, and potentially to over one thousand non-utility steam electric generators. Steam electric generation is by far the Nation's largest industrial water user, estimated at over 110 trillion (110×10^{12}) gallons per year.

Pollutants of concern for this industry include chlorine, mercury, arsenic, copper, zinc and lead. EPA estimates a total annual pollutant load of 22 million pounds, of which 727 thousand pounds are priority pollutants, based on 1992 PCS data. Chlorine and iron represent the vast majority of total loads, being 34 and 40 percent respectively. Zinc and copper represent the majority of priority pollutant loads, respectively comprising 37 and 28 percent of the total. When arranged by toxic weighted pounds chlorine is found to be the most significant pollutant, comprising 70 percent of total toxic pounds-equivalent. Mercury and arsenic contribute the greatest number of toxic pounds-equivalent among the priority pollutants. These estimated pollutant loading represent only 361 of the 910 U.S. steam electric utility plants operating in 1992, due to insufficient data for the excluded facilities.

The Steam Electric Industry ranks third among 44 industrial categories as a source of potential sediment impact. Categorization of the 53 pollutants of interest based on their environmental fate and impact indicate that 22 of the 53 are highly or moderately toxic to aquatic life. A review of documented environmental impacts shows that States identify 39 steam electric facilities as point sources impairing

water quality based on their CWA Section 304(l) "short list."

Due to many changes that have occurred in this industry since the 1982 rule, the current guidelines and standards do not address issues such as:

- "Non-utilities", mainly comprised of cogenerators and renewable fuel burners,
- Combined cycle generators, with gas turbine exhaust heat driving a steam turbine,
- Use of bromine and other biocides in place of chlorine,
- Zebra mussel control strategies, and
- Wastewaters from a growing population of non-steam electric generators.

f. Iron and Steel Manufacturing. The Iron and Steel Manufacturing regulations were promulgated in 1982 at 40 CFR part 420 and amended in 1984. EPA completed its study of the industry in 1995. The industry has consolidated and modernized in the past fifteen years. Integrated mills continue to "down-size" to reflect changes in the demand of different steels and to remain competitive. "Mini-mills" continue to grow due to their ability to make higher quality steels. Coking operations are declining due to changes in iron-making processes. Continuous casting is now the norm for the industry due to the higher energy efficiency of the process over the traditional piecemeal casting operations. These changes are believed to be fostered by domestic and world competition.

The 300 industry facilities are becoming more efficient. This has led to substantial changes in how the industry operates. Pollutant loadings are down due to improved recycle rates on many unit operations, more efficient processing of conventional operations, elimination of obsolete processes, improved computerization of manufacturing, changes in market demands, and improved treatment processes. Many better-performing mills are discharging wastewater loadings far below EPA's current standards.

However, not all of the industry has kept pace with the improved operations or pollution prevention opportunities. Forty mills are included on the sec. 304(l) "short list", and a number of mills continue to discharge in excess of current effluent guidelines. Facilities in 10 of the 12 subcategories discharge some toxic and nonconventional pollutants that are not covered in the current regulation. Changes made by the industry in its cold forming operations have rendered some current standards inapplicable, and some elements of the current regulation are obsolete. Many better-performing mills are discharging

wastewater loadings far below EPA's current standards (e.g., § 420.01(b), involving centralized waste treatment).

Revised effluent guidelines for the Iron and Steel industry could result in a substantial reduction in pollutants discharged: as much as 29 million pounds per year of total suspended solids, 6.9 million pounds of oil and grease, and 710,000 pounds of ammonia-N.

2. Ongoing Studies

a. Photographic Processing. The Photographic regulations were promulgated in 1976 for BPT (direct dischargers) only, at 40 CFR part 459. Subsequent to promulgation of the BPT rule, EPA collected some additional information to support development of BAT, NSPS and pretreatment standards, but no additional rules were promulgated. As of 1980, the Agency estimated that 99 percent of 11,000 photographic processing facilities were indirect dischargers. Several POTWs have recommended that EPA develop categorical standards for indirect dischargers. While processing facilities are believed to be widely dispersed across the United States, POTW efforts vary considerably. Some POTWs have implemented local limits for silver and perhaps other pollutants, while others have no specific mechanisms for this industry.

EPA is reviewing the pollutants of concern (such as silver, cyanide, and chromium), what technologies are available for controlling discharges and POTWs' efforts to address the discharges by means of local limits or other mechanisms. In addition to working with states and POTWs, the Agency is consulting with business associations in the review of industry-recommended silver management practices.

b. Chemical Formulators and Packagers. Chemical formulators and packagers (CFP) purchase concentrated chemical products from chemical manufacturers, and mix or otherwise formulate and/or package them into end-use products for sale to consumers, businesses and institutions. CFP facilities are similar to pesticide formulating, packaging and repackaging (PFPR) facilities in that some discharge wastewater, while others have no discharge. However, some CFP facilities are not covered by either the impending PFPR final rule, the Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) category (40 CFR part 414), nor the Inorganic Chemicals category (40 CFR part 415).

In the course of developing the PFPR rule, EPA acquired some data on CFP

facilities. EPA will continue to review these data and develop a profile of the industry's discharges.

3. Future Studies

EPA intends to begin three preliminary studies in 1996. Studies are being considered on the following subjects:

a. Coal Mining. Regulations for the Coal Mining category were promulgated in 1982 at 40 CFR part 434. The Agency is aware of several issues that have emerged subsequent to the rulemaking or that were not resolved in the promulgated rule. These include the question of whether there should be separate subcategories for remaining operations and western coal mines; whether limitations on manganese discharges should be revised; whether the criteria for "bond release" as defined at 40 CFR 434.11(d) should be revised; and whether discharges related to methane gas production should be regulated in Part 434.

b. Feedlots. Regulations for the Feedlots category were promulgated in 1974 at 40 CFR part 412. The effluent guidelines, which apply to feedlots of 1,000 or more animal units (AUs), contain limitations requiring no discharge of process wastewater pollutants, based on treatment of wastes in lagoons or holding ponds. The Agency is aware of several issues which could be explored in a preliminary study. These include:

- Changes in industry (e.g., there has been an increase in recent years in the number of large corporate hog farms)
- The ability of facilities to comply using technology that was the basis for the 1974 effluent guidelines during chronic rainfall and snowmelt runoff events
- Regulatory coverage of livestock markets
- Proper runoff control structure dewatering to maintain free-board and land disposal of contained runoff by techniques consistent with non-point source controls.

c. Stormwater Discharges. Stormwater discharges are explicitly addressed in several effluent guidelines, such as Fertilizer Manufacturing (40 CFR Part 418) and Coal Mining (40 CFR part 434). In addition, discharges associated with industrial activity and from municipal separate stormwater sewer systems serving a population of 100,000 or more are subject to NPDES stormwater permitting requirements at 40 CFR 122.21 and 122.26. The stormwater permit program is being implemented by EPA and States utilizing the NPDES regulations and permits, including individual, general and sector permits.

The Agency is considering whether development of additional technical information and guidance on characterizing stormwater discharges and evaluating the efficacy of controls would be useful to discharging facilities in complying with permit requirements. EPA may conduct a study to explore what kinds of documentation would be helpful. For example, the Agency could develop a compilation of municipal stormwater control techniques appropriate for specific situations, along with cost models and cost-effectiveness analyses.

d. Hospitals. BPT regulations for the Hospitals category were promulgated in 1976 at 40 CFR part 460. EPA published a Preliminary Data Summary on the Hospitals category in 1989. The 1989 summary reported that there were 6,870 registered hospitals in the United States as of 1985, and approximately 97 percent of these were indirect dischargers. A principal pollutant of concern from hospital discharges has been silver, emanating from processing of x-ray images. While some hospitals employ silver recovery systems, a national PSES limitation for silver may be useful to some POTWs in promoting fuller control of silver discharges. Recommended silver management practices developed by the photographic industry may be reviewed for relevancy to addressing hospital discharges. Additionally, the Agency may explore discharges associated with procedures for deactivation of infectious waste, including discharges from scrubber water of on-site incinerators.

e. Ore Mining and Dressing. Most portions of the Ore Mining and Dressing category were promulgated in 1982 at 40 CFR part 440. (Subpart M, Gold Placer Mining Subcategory, was promulgated in 1988). EPA may study issues stemming from a pending action affecting some gold mines under Subpart J (see section IV.D.2 of today's notice), and may also examine the need for revised analytical methods for cyanide, which affects multiple subcategories in part 440.

f. Glass Manufacturing. BPT regulations for the Glass Manufacturing category were promulgated in 1974 at 40 CFR part 426. The Agency is aware of changes in industry manufacturing practices since 1974 that may affect wastewater discharge characteristics, and revisions to the effluent guidelines may be appropriate. For example, there are new processes for manufacturing light bulbs and fiber optics, and there has been a substantial increase in production of float glass, while plate glass manufacturing has declined.

g. Canmaking. Regulations for the Canmaking subcategory of the Coil Coating category were promulgated in 1983 at 40 CFR part 465, Subpart D. One of the pollutant parameters included in this subcategory is Total Toxic Organics (TTO). EPA's inclusion of the TTO limit was based on the industry's use of can sealant compounds. The Agency has received reports from some POTWs that industry may no longer be using these compounds, but POTWs continue to require TTO monitoring because the limitation remains in the regulation. EPA may investigate the TTO issue to determine whether a revision to the limitation is appropriate.

h. Organic Chemicals, Plastics and Synthetic Fibers. Regulations for the OCPSF category were promulgated in 1987 at 40 CFR part 414. EPA may conduct a retrospective study of the industry's actual compliance strategies and incurred costs for complying with the final regulation in comparison to the Agency's projected technology bases and estimated costs of compliance used for developing the regulation. The Agency establishes end-of-pipe numerical standards based on the performance of specific waste management and wastewater treatment unit operations. Individual plants may select appropriate wastewater management practices and treatment alternatives to comply with the numerical standards. This study would identify the selected in-plant and end-of-pipe wastewater treatment unit operations and determine the extent to which process modifications, source reduction, water conservation, and pollution prevention were used to meet the numerical standards. The study would identify the actual costs incurred to comply with the regulation and compare them to the Agency's estimated engineering costs of compliance. This information may assist the Agency in improving the accuracy of its general approach to estimating the engineering costs of compliance.

i. Pulp, Paper and Paperboard. The proposed rule for the Pulp, Paper and Paperboard Category included BPT, BCT and NSPS for conventional pollutants for six of the proposed subcategories (Subparts G, H, I, J, K, and L), but did not address toxic and nonconventional pollutant discharges. EPA is aware of increased activity in the secondary fiber and deinking segments of the industry, and may conduct a study focusing on toxic and nonconventional pollutant discharges from these and other mills in these subcategories.

j. Generic Effluent Guideline Issues. A number of suggestions which could affect numerous existing or planned

effluent guidelines have been raised in the context of recently proposed regulations. Several of these suggestions involve implementation of effluent guidelines, while others directly impact the content of effluent guideline regulations. These suggestions include such things as allowing certification in lieu of monitoring for specified pollutants under defined circumstances, defining Best Management Practices in concert with concentration-based limitations as an alternative to mass-based limitations, considering exemptions for indirect dischargers below a cut-off point defined in terms of either flow or pollutant loadings, and allowing a reduced sampling frequency (e.g., once a year) for indirect dischargers under defined circumstances. EPA is aware of a great interest in some of these suggestions by the regulated community and local governments and may conduct a study to evaluate the potential effects of implementing these suggestions.

D. Other Rulemaking Actions

1. Leather Tanning and Finishing

EPA is promulgating minor revisions to pretreatment standards for existing and new sources applicable to certain facilities in the Leather Tanning and Finishing point source category (40 CFR part 425). The facilities involved discharge process wastewaters to POTWs. EPA is eliminating the upper (alkaline) pH limits for facilities in these subcategories. Affected POTWs may still elect to set an alternative upper (alkaline) pH limit based on local circumstances. EPA is promulgating these changes as a "direct" final rule in order to provide prompt implementation, which will allow facilities to minimize any potential hazards to worker safety and health that may occur in the absence of this rule.

This regulation is being promulgated in response to a petition submitted by a trade association for the leather tanning industry, the Leather Industries of America. The petition requests the Agency to consider relaxing the upper pH limit for certain indirect dischargers. The Agency is making a minor amendment to these regulations, provided that such an amendment would not adversely affect POTW operations or receiving water quality. This minor amendment would not affect the other rulemakings described in today's notice. EPA is not planning other revisions to the Leather Tanning regulations.

2. Ore Mining and Dressing

EPA is proposing to exempt a waste stream from existing effluent guidelines for the Copper, Lead, Zinc, Gold, Silver and Molybdenum Ores Subcategory of the Ore Mining and Dressing Category (40 CFR part 440, Subpart J). The Agency published a proposed rule on February 12, 1996 (61 FR 5364).

Dewatered tailings generated by the Alaska-Juneau (A-J) gold mine project near Juneau, Alaska would be affected by this proposal. The use of impoundments or "tailings ponds" was an important component of the technology basis of the existing regulations, which were promulgated in 1982. EPA is proposing this exemption based on the results of a preliminary review of the technology basis for the existing regulations that appear to show that, because of the severe topographic and climatic conditions that exist at the A-J site, the use of a tailings impoundment is impractical. If constructed, an extraordinary amount of wet weather runoff would flow into the impoundment which would make it impracticable to treat the mill tailings. In addition, construction of a massive tailings impoundment may result in long-term environmental degradation and there are safety concerns with a pond of this size.

This proposal opens the way for the detailed evaluation of alternatives for treatment of the tailings. The discharge of tailings from the A-J project to marine waters, which otherwise would be prohibited by Subpart J, could appropriately be evaluated. The proposal does not in itself authorize or endorse any method of tailings treatment or disposal. The discharge of tailings to marine waters would require final revision of Subpart J under the proposal. EPA will evaluate all comments and information received prior to making a final determination, which the Agency currently expects to do by the end of 1996.

3. Marine Discharges from Vessels of the Armed Forces

Section 325 of the National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106, February 10, 1996) amended the Clean Water Act by adding sec. 312(n), which requires EPA and the Department of Defense (DOD) to:

- Determine discharges from vessels of the armed forces requiring control
- Promulgate performance standards for marine pollution control
- Promulgate regulations governing design, construction, installation and use of marine pollution controls.

EPA is currently developing a plan with DOD to comply with sec. 312(n).

The amendment requires the discharge determination within two years of enactment, promulgation of performance standards within two years of discharge determination, and promulgation of other regulations within one year after promulgation of standards.

VI. Recommendations of the Effluent Guidelines Task Force

The Effluent Guidelines Task Force was established by EPA to recommend improvements to the effluent guidelines program. The Task Force consists of members appointed by the Agency from industry, citizen groups, state and local government, the academic and scientific communities, and EPA's Office of Research and Development. The Task Force was created to offer advice to the EPA Administrator on the long-term strategy for the effluent guidelines program, and particularly to provide recommendations on a process for expediting the promulgation of effluent guidelines. It is chartered as a subcommittee of the National Advisory Council for Environmental Policy and Technology (NACEPT), the external policy advisory board to the Administrator, pursuant to the Federal Advisory Committee Act (FACA).

The Task Force has developed recommendations on three topics pertinent to EPA's effluent guidelines planning process: data sources, criteria for selecting industries for preliminary studies, and the design of studies.

A. Data Sources

The Task Force generally agreed with EPA on the sources of data that are appropriate for comparing categories. It encouraged EPA to consider information supplied by POTWs, AMSA, States, and trade associations. Reviews of technical literature and the Toxic Release Inventory (for basic identification of industry sources and locations) were also recommended.

B. Criteria for Selecting Industries for Preliminary Studies

The Task Force supported EPA's use of total toxic pounds-equivalent discharged as one of the principal selection criteria. Other criteria that EPA has used in previous Effluent Guidelines Plans were supported with varying degrees of emphasis, and several new factors were recommended. The recommendations included using number of facilities and flow (including establishing a cutoff below which alternatives to establishing effluent guidelines will be developed); giving priority to industries not covered by existing guidelines; giving priority to industries targeted for regulations by other EPA programs (e.g. air, solid waste); giving priority to service industries; and priority to industries which are at or near the beginning of their investment cycles.

C. Design of Preliminary Studies

The Task Force recommended that in cases where an industry and its issues are documented, EPA should proceed directly to rulemaking rather than conducting an intermediate preliminary study. This should only be done where there is a preponderance of already assimilated information indicating full rulemaking is appropriate, or in cases where stakeholders have clearly indicated that effluent guidelines are needed. Where there is uncertainty about the extent of industrial discharges and comparability to other categories, a study should be conducted.

VII. Request for Comments

EPA invites public comment on its plans for development of effluent guidelines and preliminary studies. Comments will be accepted until August 2, 1996. In particular, the Agency is interested in data that would facilitate category-wide comparisons of industries with regard to discharge characteristics, treatment practices and effects on water quality. In addition to the industries discussed or listed in today's notice, EPA will consider

information on other industries in developing Effluent Guidelines Plans.

VIII. Economic Impact Assessment; Executive Order 12866

Today's notice proposes a plan for the review and revision of existing effluent guidelines and for the selection of priority industries for new regulations. This notice is not a "rule" and does not establish any requirements; therefore, no economic impact assessment has been prepared. EPA will provide economic impact analyses or regulatory impact analyses, as appropriate, for all of the future effluent guideline rulemakings developed by the Agency.

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this plan is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review.

Dated: June 27, 1996.
Carol M. Browner,
Administrator.

APPENDIX A—PROMULGATED EFFLUENT GUIDELINES

["Promulgation" refers to the date of promulgation of BAT controls unless otherwise noted. Minor amendments or corrections are not shown.]

Category	40 CFR Part	Promulgation	Revised Rule (P: Proposal F: Final Action) or Study Completion (S)
Aluminum Forming	467	10/83	
Asbestos Manufacturing	427	2/74	
Battery Manufacturing	461	3/84	
Builder's Paper and Board Mills ¹	431	12/86 (BCT)	
Carbon Black Manufacturing	458	1/78	
Cement Manufacturing	411	8/79 (BCT)	

APPENDIX A—PROMULGATED EFFLUENT GUIDELINES—Continued

["Promulgation" refers to the date of promulgation of BAT controls unless otherwise noted. Minor amendments or corrections are not shown.]

Category	40 CFR Part	Promulgation	Revised Rule (P: Proposal F: Final Action) or Study Completion (S)
Coal Mining	434	10/82	
Coil Coating	465	12/82	
Canmaking Subcategory		11/83	
Copper Forming	468	8/83	
Dairy Products Processing	405	6/86 (BCT)	
Electroplating	413	1/81 (PSES)	
Electrical and Electronic Components	469	4/83	
Explosives Manufacturing	457	3/76	
Feedlots	412	2/74	
Ferroalloy Manufacturing	424	7/86 (BCT)	
Fertilizer Manufacturing	418	8/79 (BCT)	
Fruits and Vegetables Processing	407	7/86 (BCT)	
Glass Manufacturing	426	7/86 (BCT)	
Grain Mills	406	7/86 (BCT)	
Gum and Wood Chemicals	454	5/76 (BPT)	
Hospitals	460	5/76 (BPT)	S 1989
Ink Formulating	447	7/75	
Inorganic Chemicals	415	6/82	S 1994
Iron and Steel Manufacturing	420	5/82	S 1995
Leather Tanning and Finishing	425	11/82	
Meat Products	432	7/76 (BCT)	
Metal Finishing	433	7/83	S 1994
Metal Molding and Casting (Foundries)	464	10/85	
Mineral Mining and Processing	436	7/77 (BPT)	
Nonferrous Metals Forming	471	8/85	
Nonferrous Metals Manufacturing	421	6/84	
Oil and Gas Extraction	435		
Offshore Subcategory		3/4/93	
Coastal Subcategory		11/79 (BPT)	P 2/17/95; F 10/96
Other Subcategories		11/79 (BPT)	
Ore Mining and Dressing	440	12/82	
Gold Placer Mining Subcategory		5/88	
Organic Chemicals, Plastics and Synthetic Fibers	414	11/87	
Paint Formulating	446	7/75	S 1989
Paving and Roofing Materials	443	7/75	
Pesticide Chemicals	455		
Manufacturing		9/28/93	
Formulating, Packaging, Repackaging		4/78 (BPT)	P 4/14/94; F 9/96
Petroleum Refining	419	10/82	S 1993
Pharmaceutical Manufacturing	439	10/83	P 5/2/95; F 11/97 ²
Phosphate Manufacturing	422	6/76	
Photographic Processing	459	7/76 (BPT)	S 1996
Plastics Molding and Forming	463	12/84	
Porcelain Enameling	466	11/82	
Pulp, Paper and Paperboard	430	12/86 (BCT)	P 12/17/93; F ¹
Rubber Manufacturing	428	2/74	
Seafood Processing	408	7/86 (BCT)	
Soap and Detergent Manufacturing	417	4/74	
Steam Electric Power Generating	423	11/82	S 1995
Sugar Processing	409	7/86 (BCT)	
Textile Mills	410	9/82	S 1994
Timber Products Processing	429	1/81	

Notes:

¹ EPA proposed merging part 431 with part 430 in the proposed Pulp, Paper and Paperboard rule on 12/17/93. The Pulp, Paper and Paperboard rulemaking is not covered by the January 31, 1992 consent decree.

² EPA is discussing extensions to Consent Decree dates with NRDC.

APPENDIX B—CURRENT AND FUTURE RULEMAKING PROJECTS

Category	Proposed	Final
Pulp, Paper and Paperboard	12/17/93 (58 FR 66078)	(¹)
Pesticide Formulating, Packaging and Repackaging	4/14/94 (59 FR 17850)	9/96
Centralized Waste Treatment	1/27/95 (60 FR 5464)	² 9/96

APPENDIX B—CURRENT AND FUTURE RULEMAKING PROJECTS—Continued

Category	Proposed	Final
Coastal Oil and Gas Extraction	2/17/95 (60 FR 9428)	10/96
Pharmaceutical Manufacturing	5/2/95 (60 FR 21592)	² 8/96
Metal Products and Machinery, Phase 1	5/30/95 (60 FR 28209)	^{2,3} 9/96
Industrial Laundries	² 12/96	² 12/98
Transportation Equipment Cleaning	² 12/96	² 12/98
Landfills and Incinerators	² 5/97	² 5/99
Metal Products and Machinery, Phase 2	² 12/97	^{2,3} 12/99
Iron and Steel Manufacturing	² 12/98	² 12/00
1 category	² 12/98	² 12/00
2 categories	² 12/99	² 12/01
2 categories	² 12/00	² 12/02
2 categories	² 8/01	² 12/03

Notes:

¹ The Pulp, Paper and Paperboard rulemaking is not covered by the January 31, 1992 consent decree.

² EPA is discussing extensions to Consent Decree dates with NRDC.

³ EPA is considering merging Phases 1 and 2 of the Metal Products and Machinery rule.

See discussion above.

APPENDIX C—PRELIMINARY STUDIES

Category	Complete
Petroleum Refining	1993
Metal Finishing	1993
Textile Mills	1994
Inorganic Chemicals	1994
Steam Electric Power Generating	1995
Iron and Steel Manufacturing	1995
Photographic Processing	1996
Chemical Formulators and Packagers	1996
Three studies	1997
(see discussion in Section IV.C.3)	

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