

The Acting Assistant Administrator signed the following notice on August 26, 2004, and EPA is submitting it for publication in the Federal Register. While we have taken steps to ensure the accuracy of this pre-publication version, it is not the official version. Please refer to the official version in a forthcoming Federal Register publication, or on GPO's website at <http://www.gpoaccess.gov/fr/index.html>, or on EPA's website at <http://www.epa.gov/guide/plan.html>.

ENVIRONMENTAL PROTECTION AGENCY

OW-2003-0074; FRL-XXXX-X

RIN 2040-AD92

Notice of Availability of 2004 Effluent Guidelines Program Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Availability of Final 2004 Effluent Guidelines Program Plan.

SUMMARY: Today's notice describes EPA's 2004 annual review of existing effluent guidelines under CWA section 304(b) and presents EPA's final 2004 Effluent Guidelines Program Plan under CWA section 304(m). Under the Clean Water Act (CWA), EPA establishes technology-based national regulations, termed "effluent guidelines," to reduce pollutant discharges from categories of industrial facilities to waters of the United States. Section 304(m) of the Clean Water Act requires EPA to publish an Effluent Guidelines Program Plan every two years after allowing for public review and comment on the plan prior to final publication. The Agency published the preliminary Effluent Guidelines Program Plan on December 31, 2003 (68 FR 75515), and public comments on the preliminary plan are discussed in today's notice and in the docket accompanying the plan. After reviewing additional data and considering public comments, EPA is publishing its final 2004 Effluent Guidelines Program Plan. In this Plan, EPA identifies four industries for effluent guidelines rulemaking. Two of these industries – Airport Deicing Operations and Drinking Water Supply and Treatment – are not subject to existing effluent guidelines. The other two industries – Vinyl Chloride Manufacturing, which is part of the Organic Chemicals, Plastics, and Synthetic Fibers point source category, and Chlor-Alkali manufacturing,

which is part of the Inorganic Chemicals point source category – are subject to existing effluent guidelines, which EPA is identifying for possible revision. EPA expects to combine its analysis of the OCPSF and Inorganic Chemicals effluent guidelines into one rulemaking. Today’s notice describes the schedule for these effluent guidelines rulemakings. This notice also describes EPA’s preliminary thoughts concerning its 2005 annual review under CWA section 304(b) and solicits comments, data and information to assist EPA in performing that review.

ADDRESSES: Submit your comments, data and information for the 2005 annual review, identified by Docket ID No. OW-2004-0032, by one of the following methods:

- A. Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
- B. Agency Website: <http://www.epa.gov/edocket>. EDOCKET, EPA’s electronic public docket and comment system, is EPA’s preferred method for receiving comments, data and information. Follow the on-line instructions for submitting comments.
- C. E-mail: OW-Docket@epa.gov
- D. Mail: Water Docket, Environmental Protection Agency, Mailcode: 4101T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, Attention Docket ID No. OW-2004-0032. Please include a total of 3 copies.
- E. Hand Delivery: Water Docket, EPA Docket Center, EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC, Attention Docket ID No. OW-2004-0032. Such deliveries are only accepted during the Docket’s normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments, data and information to Docket ID No. OW-2004-0032.

EPA's policy is that all comments, data and information received will be included in the public docket without change and may be made available online at <http://www.epa.gov/edocket>, including any personal information provided, unless the material includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through EDOCKET, regulations.gov, or e-mail. The EPA EDOCKET and the federal regulations.gov websites are "anonymous access" systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through EDOCKET or regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit EDOCKET on-line or see the Federal Register of May 31, 2002 (67 FR 38102). For additional instructions on obtaining access to comments, go to Section I.B of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: All documents in the docket are listed in the EDOCKET index at <http://www.epa.gov/edocket>. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other

material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy at the Water Docket, EPA/DC, EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Water Docket is (202) 566-2426.

FOR FURTHER INFORMATION CONTACT: Mr. Carey A. Johnston at (202) 566-1014 or johnston.carey@epa.gov, or Mr. Tom Wall at (202) 566-1060 or wall.tom@epa.gov.

SUPPLEMENTARY INFORMATION:

The outline of today's notice follows.

- I. General Information
- II. Legal Authority
- III. What is the Purpose of Today's Federal Register Notice?
- IV. Background
- V. EPA's 2004 Annual Review of Effluent Guidelines Promulgated Under CWA Section 304(b)
- VI. EPA's 2005 Review of Effluent Guidelines Promulgated Under CWA Section 304(b)
- VII. The 2004 Effluent Guidelines Program Plan Under Section 304(m): Identification of Point Source Categories and Schedule for Future Effluent Guidelines Rulemakings

I. General Information

A. Regulated Entities

Today's notice does not contain regulatory requirements. Rather, today's notice describes the Agency's 2004 annual review of existing effluent guidelines under CWA section 304(b) and the 2004 Effluent Guidelines Plan under CWA section 304(m) ("Plan"). As required by CWA section 304(m), the Plan presents a schedule for EPA's annual review of existing effluent guidelines under CWA section 304(b) and a schedule for the possible revision of two of those guidelines; it identifies industries for which EPA has not promulgated effluent guidelines but may decide to do so through rulemaking; and it establishes schedules for these rulemakings.

B. How Can I Get Copies Of Related Information?

1. Docket

EPA has established an official public docket for the Agency's 2004 annual review of existing effluent guidelines under CWA section 304(b) and the 2004 Effluent Guidelines Plan under CWA section 304(m) under Docket ID No. OW-2003-0074. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute is not included in the materials available to the public. The official public docket is the collection of materials that is available for public viewing at the Water Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202)

566-1744, and the telephone number for the Water Docket is (202) 566-2426.

2. Electronic Access

You may access this Federal Register document electronically through the EPA Internet under the "Federal Register" listings at <http://www.epa.gov/fedrgstr/>. An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at <http://www.epa.gov/edocket/> to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in section I.B.1. Once in the system, select "search," then key in the appropriate docket identification number.

II. Legal Authority

Today's notice is published under the authority of the CWA, 33 U.S.C. 1251, et seq., and in particular sections 301(d), 304(b), 304(g), 304(m), and 306, 33 U.S.C. 1311(d), 1314(b), 1314(g), 1314(m), and 1316.

III. What is the Purpose of Today's Federal Register Notice?

Today's Federal Register notice consists of three parts. First, it describes EPA's 2004 annual review of the effluent guidelines that EPA has promulgated under CWA section 304(b). Second, it describes EPA's plans for its 2005 annual review of existing effluent guidelines. Third, as required by CWA section 304(m), this notice presents EPA's final 2004 Effluent Guidelines Program Plan.

IV. Background

A. What Are Effluent Guidelines?

The CWA directs EPA to promulgate effluent limitations guidelines and standards that reflect pollutant reductions that can be achieved by categories or subcategories of industrial point sources using specific technologies. See CWA sections 301(b)(2), 304(b), 306, 307(b), and 307(c). For point sources that introduce pollutants directly into the waters of the United States (direct dischargers), the effluent limitations guidelines and standards promulgated by EPA are implemented through National Pollutant Discharge Elimination System (NPDES) permits. See CWA sections 301(a), 301(b), and 402. For sources that discharge to publicly owned treatment works (POTWs) (indirect dischargers), EPA promulgates pretreatment standards that apply directly to those sources and are enforced by POTWs and State and Federal authorities. See CWA sections 307(b) and (c).

1. Best Practicable Control Technology Currently Available (BPT) – CWA Sections 301(b)(1)(A) & 304(b)(1)

EPA defines Best Practicable Control Technology Currently Available (BPT) effluent limitations for conventional, toxic, and non-conventional pollutants. Section 304(a)(4) designates the following as conventional pollutants: biochemical oxygen demand (BOD₅), total suspended solids, fecal coliform, pH, and any additional pollutants defined by the Administrator as conventional. The Administrator designated oil and grease as an additional conventional pollutant on July 30, 1979. See 44 FR 44501 (July 30, 1979). EPA has identified 65 pollutants and classes of pollutants as toxic pollutants, of which 126 specific substances have been designated priority toxic pollutants. See Appendix A to part 423. All other pollutants are

considered to be non-conventional.

In specifying BPT, EPA looks at a number of factors. EPA first considers the total cost of applying the control technology in relation to the effluent reduction benefits. The Agency also considers the age of the equipment and facilities, the processes employed and any required process changes, engineering aspects of the control technologies, non-water quality environmental impacts (including energy requirements), and such other factors as the EPA Administrator deems appropriate. See CWA Section 304(b)(1)(B). Traditionally, EPA establishes BPT effluent limitations based on the average of the best performances of facilities within the industry of various ages, sizes, processes or other common characteristics. Where existing performance is uniformly inadequate, BPT may reflect higher levels of control than currently in place in an industrial category if the Agency determines that the technology can be practically applied.

2. Best Conventional Pollutant Control Technology (BCT) – CWA Sections 301(b)(2)(E) & 304(b)(4)

The 1977 amendments to the CWA required EPA to identify effluent reduction levels for conventional pollutants associated with Best Conventional Pollutant Control Technology (BCT) for discharges from existing industrial point sources. In addition to considering the other factors specified in Section 304(b)(4)(B) to establish BCT limitations, EPA also considers a two part “cost-reasonableness” test. EPA explained its methodology for the development of BCT limitations in 1986. See 51 FR 24974 (July 9, 1986).

3. Best Available Technology Economically Achievable (BAT) – CWA Sections 301(b)(2)(A) & 304(b)(2)

For toxic pollutants and non-conventional pollutants, EPA promulgates effluent guidelines based on the Best Available Technology Economically Achievable (BAT). See CWA Section 301(b)(2)(A), (C), (D) & (F). The factors considered in assessing BAT include the cost of achieving BAT effluent reductions, the age of equipment and facilities involved, the process employed, potential process changes, non-water quality environmental impacts, including energy requirements, and other such factors as the EPA Administrator deems appropriate. See CWA Section 304(b)(2)(B). The technology must also be economically achievable. See CWA Section 301(b)(2)(A). The Agency retains considerable discretion in assigning the weight accorded to these factors. BAT limitations may be based on effluent reductions attainable through changes in a facility's processes and operations. Where existing performance is uniformly inadequate, BAT may reflect a higher level of performance than is currently being achieved within a particular subcategory based on technology transferred from a different subcategory or category. BAT may be based upon process changes or internal controls, even when these technologies are not common industry practice.

4. New Source Performance Standards (NSPS) – CWA Section 306

New Source Performance Standards (NSPS) reflect effluent reductions that are achievable based on the best available demonstrated control technology. New sources have the opportunity to install the best and most efficient production processes and wastewater treatment technologies. As a result, NSPS should represent the most stringent controls attainable through the application of the best available demonstrated control technology for all pollutants (*i.e.*, conventional, non-conventional, and priority pollutants). In establishing NSPS, EPA is directed to take into consideration the cost of achieving the effluent reduction and any non-water quality environmental

impacts and energy requirements.

5. Pretreatment Standards for Existing Sources (PSES) – CWA Section 307(b)

Pretreatment Standards for Existing Sources (PSES) are designed to prevent the discharge of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of publicly-owned treatment works (POTWs), including sludge disposal methods at POTWs.

Pretreatment standards for existing sources are technology-based and are analogous to BAT effluent limitations guidelines.

The General Pretreatment Regulations, which set forth the framework for the implementation of national pretreatment standards, are found at 40 CFR part 403.

6. Pretreatment Standards for New Sources (PSNS) – CWA Section 307(c)

Like PSES, Pretreatment Standards for New Sources (PSNS) are designed to prevent the discharges of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of POTWs. PSNS are to be issued at the same time as NSPS. New indirect dischargers have the opportunity to incorporate into their plants the best available demonstrated technologies. The Agency considers the same factors in promulgating PSNS as it considers in promulgating NSPS.

B. What are EPA's Review and Planning Obligations under Sections 304(b) and 304(m)?

Section 304(b) requires EPA to review effluent guidelines for existing direct dischargers each year and to revise such regulations as appropriate. Section 304(b) also specifies factors that EPA must consider when deciding whether revising an effluent guideline is appropriate. See Section IV.A. Section 304(m) supplements the core requirement of section 304(b) by requiring EPA to publish a plan every two years announcing its schedule for performing this annual review

and its schedule for rulemaking for any effluent guideline selected as a result of that annual review for possible revision. Section 304(m) also requires the plan to identify categories of sources discharging non-trivial amounts of toxic or non-conventional pollutants for which EPA has not published effluent limitations guidelines under section 304(b)(2) or NSPS under section 306. See CWA section 304(m)(1)(B); S. Rep. No. 50, 99th Cong., 1st Sess. (1985); WQA87 Leg. Hist. 31. Finally, under section 304(m), the plan must present a schedule for promulgating effluent guidelines for industrial categories for which it has not already established such guidelines, with final action on such rulemaking required not later than three years after the industrial category is identified in a final Effluent Guidelines Program Plan. See CWA section 304(m)(1)(C). EPA is required to publish its Effluent Guidelines Program Plan for public comment prior to taking final action on the plan. See CWA section 304(m)(2).

In addition, CWA section 301(d) requires EPA to review every five years the effluent limitations required by CWA section 301(b)(2) and to revise them if appropriate pursuant to the procedures specified in that section. Section 301(b)(2), in turn, requires point sources to achieve effluent limitations reflecting the application of the best available technology economically achievable (for toxic pollutants and non-conventional pollutants) and the best conventional pollutant control technology (for conventional pollutants), as determined by EPA under sections 304(b)(2) and 304(b)(4), respectively. For nearly three decades, EPA has implemented sections 301 and 304 through the promulgation of effluent limitations guidelines. See *E.I. du Pont de Nemours & Co. v. Train*, 430 U.S. 113 (1977). Consequently, as part of its annual review of effluent limitations guidelines under section 304(b), EPA is also reviewing the effluent limitations they contain, thereby fulfilling its obligations under section 301(d) and 304(b) simultaneously.

C. How Has EPA Met the Requirements of Sections 304(b) and 304(m)?

Since 1992, EPA has performed detailed studies of eleven industrial activities. See 63 FR 47285, 47288 (Sept. 4, 1998); 61 FR 52582, 52585 (Oct. 7, 1996). EPA also published ten preliminary data summaries in 1989. See 59 FR 44234, 44236-37 (Aug. 26, 1994). Since 1992, EPA has identified 20 point source categories or classes for new or revised effluent guidelines. EPA completed a rulemaking process for each identified point source category or class, and has promulgated new or revised effluent guidelines for 18 of those point source categories or classes. EPA has also published a final effluent guidelines program plan under CWA section 304(m) every even-numbered year since 1990 that describes these activities. For a list of effluent guidelines rulemakings conducted by EPA since 1992, see the Docket accompanying this notice (see DCN 2003-0074).

Since 1992, the content and timing of EPA’s 304(m) Plans have been governed by a consent decree between EPA and the Natural Resources Defense Council and Public Citizen, Inc. *See Natural Resources Defense Council, et al. v. Leavitt*, No. 89-2980 (RCL) (D.D.C. Jan. 31, 1992). However, since publication of the preliminary Effluent Guidelines Plan in December 2003, EPA has met all of its obligations under the consent decree by taking final action in the three remaining effluent guidelines rulemakings. See Table IV-1. The Court terminated this consent decree on August 9, 2004. See Natural Resources Defense Council, et al v. Leavitt, No. 89-2980 (RCL), slip op. at 1 (D. D.C. Aug. 9, 2004).

Table IV-1: Final Three Point Source Categories Governed by 1992 Consent Decree

Point Source Category (EPA Web Sites)	CFR Part	Federal Register Citation: Proposal	Final Action Date
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		(Date)	
Meat and Poultry Products† (http://epa.gov/guide/mpp/)	432	67 FR 8581 (Feb. 25, 2002)	Signed February 26, 2004
Construction and Development (http://epa.gov/guide/construction/)	450‡	67 FR 42644 (June 24, 2002)	Signed March 31, 2004
Aquatic Animal Production (http://epa.gov/guide/aquaculture/)	451	67 FR 57872 (Sept. 12, 2002)	Signed June 30, 2004

† **Note:** EPA changed the title of 40 CFR part 432 from “Meat Products” to “Meat and Poultry Products.”

‡ **Note:** EPA proposed to add Part 450 to Title 40 of the Code of Federal Regulations but withdrew this proposal in the final action.

V. EPA’s 2004 Review of Effluent Guidelines Promulgated Under Section 304(b).

A. What Process Did EPA Use to Review Effluent Guidelines Promulgated Under CWA Section 304(b)?

1. Background

The annual review obligation created under section 304(b) and described in section 304(m)(1)(A) applies to effluent guidelines promulgated under section 304(b). This refers to BPT, BCT and BAT effluent limitations guidelines codified for different point source categories at 40 CFR parts 405-471 (representing a total of 56 point source categories and over 450 subcategories). Consistent with section 304(b) and section 301(d), in 2004, EPA reviewed existing effluent limitations guidelines and standards for direct dischargers. EPA also reviewed under CWA section 306 the NSPS promulgated by EPA under that section. Finally, when EPA reviewed effluent guidelines under section 304(b) for a point source category composed of both direct and indirect dischargers, EPA also reviewed under CWA section 304(g) the pretreatment standards EPA had promulgated for that category under CWA section 307(b) & (c). EPA intends to review the pretreatment standards for industrial point source categories composed entirely or almost entirely of indirect dischargers under a separate process under section 304(g).

EPA's annual review of existing effluent guidelines under section 304(b) represents a considerable effort by the Agency to consider the hazards or risks to human health and the environment from industrial point source categories. The 2003 and 2004 annual reviews reflect a lengthy outreach effort to involve stakeholders in the planning process. In performing its 2004 annual review, EPA carefully considered all information and data submitted during the public comment period for the preliminary Effluent Guidelines Program Plan published in December 2003, which discussed EPA's 2003 annual review. EPA reviewed all industrial sectors and conducted more focused detailed reviews for a select number of industrial sectors (see DCN 01088, section 1.5). As noted in the 2004 Effluent Guidelines Program Plan discussed elsewhere in today's notice, EPA has selected some of these industrial sectors for an effluent guidelines rulemaking.

As discussed in more detail below, EPA used pollutant loadings information and technological, economic, and other information in evaluating whether revising its promulgated effluent guidelines would be appropriate. EPA also examined the processes and operations of each category for which EPA had already promulgated effluent guidelines in order to decide whether it might be appropriate to address (through additional subcategories) other industrial activities that are similar in terms of type of operations performed, wastewaters generated, and available pollution prevention and treatment options. Because issues associated with such additional subcategories very often are interwoven with the structure and requirements of the existing regulation, EPA believes that incorporating its review of these potential subcategories into its annual review of the larger categories with which they likely belong is the most efficient way to fulfill its statutory obligations under section 304(b) and 304(m). This is especially

important given the large number of existing categories and potential additional subcategories that EPA must review annually.

One example where EPA established effluent guidelines for an additional subcategory under an existing category is the agricultural refilling establishments subcategory (Subpart E) that EPA added to the Pesticide Chemicals point source category (40 CFR part 455). See 61 FR 57518 (Nov. 6, 1996). The BPT limitations in Part 455 did not cover refilling establishments and their industrial operations (*e.g.*, refilling of minibulks) because these industrial operations did not begin until well after the limitations were first promulgated. EPA considered refilling establishments a subcategory of the Pesticide Chemicals point source category because of similar types of industrial operations performed, wastewaters generated, and available pollution prevention and treatment options.

EPA's annual review under section 304(b) also focused on identifying pollutants that are not regulated by an existing effluent guideline for a point source category but that comprise a significant portion of the estimated toxic-weighted pollutant discharges for that category. EPA believes that it is reasonable to consider new pollutants for regulation in the course of reviewing existing effluent guidelines under CWA section 304(b). EPA has several reasons for this. First, a newly identified pollutant might be adequately addressed through existing regulations or through the additional control of already regulated pollutants in an existing set of effluent guidelines. In some cases, revising existing limitations for one set of pollutants will address hazards or risks associated with a newly identified pollutant, thus obviating the need for EPA to promulgate specific limitations for that pollutant. Second, EPA believes it is necessary to understand the effectiveness (or ineffectiveness) of existing effluent guidelines in controlling newly identified

pollutants before EPA can identify potential technology-based control options for these pollutants. For example, EPA revised effluent guidelines for the Oil and Gas Extraction point source category (40 CFR part 435) to add limitations for new pollutants that resulted from a new pollution prevention technology (synthetic-based drilling fluids). See 66 FR 6850 (January 22, 2001). Similarly, EPA revised effluent limitations for the bleached papergrade kraft and soda and papergrade sulfite subcategories within the Pulp and Paper point source category to add BAT limitations for dioxin, which was not measurable when EPA first promulgated the effluent guidelines. See 63 FR 18504 (Apr. 15, 1998).

In general, treatment technologies address multiple pollutants and it is important to consider their effects holistically in order to develop limitations that are both environmentally protective and economically achievable. In short, EPA believes that the appropriateness of creating an additional subcategory or addressing a newly identified pollutant is best considered in the context of revising an existing set of effluent guidelines. Accordingly, EPA performed these analyses as part of its annual review of existing effluent guidelines under CWA section 304(b).

2. What factors does EPA consider in its annual review of effluent guidelines under section 304(b)?

The starting point of EPA's analysis is CWA section 301(b)(2)(A), which requires dischargers to achieve effluent limitations that reflect the best available technology economically achievable (BAT), as identified by the Administrator under the authority of CWA section 304(b)(2). Section 304(b), in turn, requires EPA to consider many factors in identifying BAT. These are discussed in section IV.A.3. Section 304(b) also directs EPA to revise the existing effluent guidelines when it deems appropriate. By using the statutory factors in section 304(b) and

section 301(b)(2)(A) as the framework for its annual review of existing guidelines, EPA can investigate a variety of technological, economic, and environmental issues that ultimately will help determine whether it should revise the effluent guidelines for a particular industrial category. In the draft *Strategy for National Clean Water Industrial Regulations* (“draft *Strategy*”), see 67 FR 71165 (Nov. 29, 2002), EPA identified four major factors – based on section 304(b) – that the Agency would examine, in the course of its annual review, to determine whether it would be appropriate to revise an existing set of effluent guidelines.

The first factor considers the amount and toxicity of the pollutants remaining in an industrial category’s discharge and the extent to which these pollutants pose a hazard or risk to human health or the environment. This helps the Agency assess the extent to which additional regulation may contribute reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as specified in Section 301(b)(2)(A). The second factor identifies and evaluates the cost and performance of an applicable and demonstrated technology, process change, or pollution prevention alternative that can effectively reduce the pollutants remaining in the industrial category’s wastewater and, consequently, substantially reduce the hazard or risk to human health or the environment associated with these pollutant discharges. Cost is a factor specifically identified in Section 304(b) for consideration in establishing BPT, BAT and BCT. The third factor evaluates the affordability or economic achievability of the technology, process change, or pollution prevention measures identified using the second factor pursuant to section 304(b)(2)(A). If the financial condition of the industry indicates that it would experience significant difficulties in implementing the new technology, process change, or pollution prevention measures, EPA might conclude that Agency resources would be more effectively spent

developing more efficient, less costly approaches to reducing pollutant loadings that would better satisfy applicable statutory requirements.

The fourth factor addresses implementation and efficiency considerations and recommendations from stakeholders. Here, EPA considers opportunities to eliminate inefficiencies or impediments to pollution prevention or technological innovation, or opportunities to promote innovative approaches such as water quality trading, including within-plant trading. For example, in the 1990s, industry requested in comments on the Offshore and Coastal effluent guidelines rulemakings that EPA revise these effluent guidelines because they inhibited the use of a new pollution prevention technology (synthetic-based drilling fluids). EPA agreed that revisions to these effluent guidelines were appropriate for promoting synthetic-based drilling fluids as a pollution prevention technology and promulgated revisions to the Oil and Gas Extraction point source category. See 66 FR 6850 (Jan. 22, 2001). This factor might also prompt EPA, during an annual review, to decide against identifying an existing set of effluent guidelines for revision where the pollutant source is already efficiently and effectively controlled by other regulatory or non-regulatory programs. While this factor is not specifically mentioned in the CWA, EPA believes it is appropriate to consider as an “other factor” that the Administrator deems appropriate, as specified in Section 304(b) for BPT, BAT and BCT.

EPA intends to finalize the draft *Strategy* in connection with the final 2006 Effluent Guidelines Program Plan. This will allow time for EPA to better refine the *Strategy* as it performs future reviews under section 304(b).

3. How did EPA’s 2003 annual review influence its 2004 annual review of point source categories with existing effluent guidelines?

In view of its annual nature, EPA believes that each annual review can and should influence succeeding annual reviews, e.g., by indicating data gaps, identifying new hazards or technologies, or otherwise highlighting industrial categories for more detailed scrutiny in subsequent years. During its 2003 annual review, which concluded in December 2003, EPA identified two industrial categories for detailed investigation in its 2004 annual review: Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) (Part 414); and Petroleum Refining (Part 419). As part of its 2003 review of the OCPSF effluent guidelines, EPA identified a potential additional subcategory for more detailed review: chemical formulating, packaging, and repackaging (including adhesives and sealants) operations. EPA also identified for more detailed review a potential additional subcategory of the Petroleum Refining effluent guidelines: petroleum bulk stations and terminals. In addition, EPA identified potentially high risks or hazards associated with discharges from two other industrial categories: Inorganic Chemicals (Part 415) and Nonferrous Metals Manufacturing (Part 421). Finally, EPA identified seven other industrial point source categories with relatively high estimates of toxic-weighted pollutant discharges. EPA's 2003 annual review, including stakeholder comments received as of that date, is discussed in the preliminary Effluent Guidelines Program Plan published in December 2003. *See* 68 FR 75515, 75526 (Table VI-2), 75530 (Table VII-1) (Dec. 31, 2003). EPA used the results of the 2003 annual review to inform its 2004 annual review.

4. What actions did EPA take in performing its 2004 annual review of existing effluent guidelines?

a. Screening-level review

The first component of EPA's 2004 annual review consisted of a screening-level review of all promulgated effluent guidelines. As a starting point for this review, EPA examined screening-level data from its 2003 annual review. In its 2003 annual review, EPA focused its efforts on collecting and analyzing screening-level data to identify industrial categories whose pollutant discharges potentially pose the greatest hazard or risk to human health because of their magnitude and toxicity (*i.e.*, highest estimates of toxic-weighted pollutant discharges). In particular, EPA ranked point source categories according to their discharges of toxic and non-conventional pollutants (reported in units of toxic-weighted pound equivalent or TWPE), based primarily on data from the Toxics Release Inventory (TRI) and the Permit Compliance System (PCS). EPA estimated the hazard of the discharged pounds of pollutants by calculating hazard scores using pollutant-specific toxic weighting factors (TWFs). Where data is available these TWFs reflect both aquatic life and human health effects. Multiplying the pounds of pollutants discharged by their TWFs results in an estimate of toxic-weighted pound equivalents (TWPE). EPA also analyzed available data linking water quality impairments with point source discharges, and considered implementation and efficiency issues and water quality issues raised by EPA Regions and stakeholders. The full description of EPA's methodology to synthesize screening-level results for the 2004 annual review is presented in the Docket accompanying this notice (see DCN 01088, section 1.5).

In its 2004 annual review, EPA re-examined the categories listed in the 2003 screening review, with particular emphasis on those for which EPA had reason to believe the Factor 1 risk

or hazard assessment had changed. For example, when stakeholders identified existing effluent guidelines for revision in their comments on the 2003 review and the preliminary Plan, EPA re-considered the extent to which the pollutants in the industrial category's wastewater discharge posed a hazard or risk to human health or the environment. EPA also used data and information in these comments to revise pollutant estimates. For example, EPA refined its assessment of dioxin discharges in petroleum refining wastewaters based on industry comments on the preliminary Plan (see section V.B.2). Additionally, in response to comments, EPA reviewed pollutant discharges from oil and gas extraction facilities in Cook Inlet, Alaska, to estimate toxic-weighted pollutant discharges. Accordingly, EPA revised the industrial category toxic-weighted discharges, and assigned those categories with the lowest estimates of toxic-weighted pollutant discharges a lower priority for revision.

EPA also developed and used a quality assurance project plan (QAPP) as a tool to document the type and quality of data needed to make the decisions in this annual review and to describe the methods for collecting and assessing those data (see DCN 00694, section 2.1). EPA used the following document to develop the QAPP for this annual review, "EPA Requirements for QA Project Plans (QA/R-5), EPA-240-B01-003." Using the QAPP as a guide, EPA performed extensive quality assurance checks on the data used to develop estimates of toxic-weighted pollutant discharges (*i.e.*, verifying data reported to TRI and the Permit Compliance System) to determine if any of the pollutant discharge estimates relied on incorrect or suspect data. For example, EPA contacted facilities and permit writers to confirm and, as necessary, correct PCS and TRI data for industries EPA identified in the preliminary Plan as the significant dischargers of toxic and non-conventional pollution.

EPA did not, however, conduct a comprehensive screening-level review of the availability of treatment or process technologies that might reduce hazard or risk. As was the case in the 2003 annual review, EPA was unable to gather the data needed to perform a comprehensive screening-level analysis of the availability of treatment or process technologies to reduce hazard or risk beyond the performance of technologies already in place for the 56 industrial categories. EPA did consider information on the availability of treatment or process changes for some industries, where such information was provided by commenters on the preliminary Plan or otherwise identified by EPA. Similarly, EPA could not identify a suitable screening-level tool for comprehensively evaluating the economic affordability of treatment or process technologies because the universe of facilities is too broad and complex. However, EPA did consider economic information for the two industries identified in the Preliminary Plan (i.e., Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) and Petroleum Refining. For example, as a result of its 2004 annual review, EPA is not scheduling the coal tar refining industrial sector (a subcategory of OCPSF) for an effluent guidelines revision due, in part, to the declining health of this subcategory (see section V.B.1.). However, EPA could not find a reasonable way to prioritize many of the remaining industries based on a broad economic profile. In the past, EPA has gathered information regarding technologies and economic considerations through detailed questionnaires distributed to hundreds of facilities within a category or subcategory for which EPA has commenced rulemaking. (See DCN 01196 for an example of the Questionnaire used by EPA for the Meat and Poultry Products rulemaking, and DCN 01195 for an example of the Questionnaire used for the Iron and Steel Rulemaking.) Such information-gathering efforts are subject to the requirements of the Paperwork Reduction Act, 33 U.S.C. 3501, et seq. The

information acquired in this way is invaluable to EPA in its rulemaking efforts, but the process of gathering, validating and analyzing the data – even for only a few subcategories – can consume considerable time and resources. Consequently, EPA is working to develop more streamlined screening-level tools for technological and economic achievability as part of future annual reviews under section 304(b).

In order to further focus its inquiry during the 2004 annual review, EPA applied less scrutiny to categories for which effluent guidelines rulemakings were then underway or for which EPA had promulgated effluent guidelines within the past seven years. EPA chose seven years because this is the time it customarily takes for the effects of effluent guidelines to be fully reflected in pollutant loading data and Toxic Release Inventory reports (in large part because effluent limitations guidelines are often incorporated into NPDES permits only upon reissuance, which could be up to five years after the effluent guidelines are promulgated). Because there are 56 point source categories (including over 450 subcategories) with existing effluent guidelines that must be reviewed annually, EPA believes it is important to prioritize its review so as to focus especially on industries where changes to the existing effluent guidelines are most likely to be needed. In general, industries for which new or revised effluent guidelines have recently been promulgated are less likely to warrant such changes. However, in cases where EPA becomes aware of the growth of a new segment within a category for which EPA has recently revised effluent guidelines, or where new concerns are identified for previously unevaluated pollutants discharged by facilities within the industrial category, EPA would apply a heightened level of scrutiny to the category in a subsequent review, but EPA identified no such instance during the 2004 review.

EPA also identified some industries where the estimated toxic-weighted pollutant discharges were unclear and more data were needed to determine their magnitude. For these industries, EPA intends to collect additional information for the next annual review.

As part of its 2004 review, EPA also considered the number of facilities responsible for the majority of the estimated toxic-weighted pollutant discharges associated with an industrial activity. Where only a few facilities accounted for the vast majority of toxic-weighted pollutant discharges, EPA believes that revision of individual permits may be more effective at addressing the toxic-weighted pollutant discharges than a national effluent guidelines rulemaking because requirements can be better tailored to these few facilities, and because individual permitting actions may take considerably less time than a national rulemaking. The Docket accompanying this notice lists facilities that account for the vast majority of the estimated toxic-weighted pollutant discharges for particular categories (see DCN 01089, section 3.0). EPA will consider identifying pollutant control and pollution prevention technologies that will assist permit writers in developing facility-specific, technology-based effluent limitations on a best professional judgment (BPJ) basis. In future annual reviews, EPA also intends to re-evaluate each category based on the information available at the time in order to evaluate the effectiveness of the BPJ permit based support.

EPA received comments urging EPA, as part of its annual review, to encourage and reward voluntary efforts by industry to reduce pollutant discharges, especially when the voluntary efforts have been widely adopted within an industry and the associated pollutant reductions have been significant. EPA agrees that industrial categories demonstrating significant progress through voluntary efforts to reduce hazard or risk to human health and the environment associated with

their effluent discharges would be a comparatively lower priority for effluent guidelines revision, particularly where such reductions are achieved by a significant majority of individual facilities in the industry. Although during this annual review EPA could not complete a systematic review of voluntary pollutant loading reductions, EPA's review did account for the effects of successful voluntary programs: such programs could be expected to produce significant reductions in pollutant discharges, which in turn would be reflected in discharge monitoring and TRI data, as well as any data provided directly by commenters, that EPA used to assess the toxic-weighted pollutant discharges.

In summary, EPA focused its 2004 screening-level review on analyzing any new data provided by stakeholders to identify industrial categories whose pollutant discharges potentially pose the greatest hazards or risks to human health and the environment because of their toxicity. EPA also considered efficiency and implementation issues raised by stakeholders and commenters on the preliminary Plan. By using this multi-layered screening approach, the Agency concentrated its resources on those point source categories with the highest estimates of toxic-weighted pollutant discharges (based on best available data), while assigning a lower priority to categories that the Agency believes are not good candidates for effluent guidelines revision at this time.

b. Detailed review of effluent guidelines for certain industries

For a number of the industries that appeared to offer the greatest potential for reducing hazard or risk to human health or the environment, EPA gathered and analyzed additional data on hazard and risk, economic factors, and technology issues during its 2004 annual review. EPA examined: (1) wastewater characteristics and pollutant sources; (2) the pollutants driving the toxic-weighted pollutant discharges; (3) treatment technology and pollution prevention

information; (4) the geographic distribution of facilities in the industry; (5) any pollutant discharge trends within the industry; and (6) any relevant economic factors.

EPA relied on many different sources of data including: (1) 1997 U.S. Economic Census; (2) TRI and PCS data; (3) contacts with reporting facilities to verify reported releases and facility categorization; (4) contacts with regulatory authorities (states and EPA regions), to understand how category facilities are permitted; (5) NPDES permits and their supporting fact sheets; (6) EPA effluent guidelines technical development documents; (7) relevant EPA preliminary data summaries or study reports; (8) technical literature on pollutant sources and control technologies; (9) information provided by industry in response to EPA requests made under CWA section 308 authority; (10) stormwater data submitted to EPA as required by the storm water Multi-Sector General Permit for industrial activities. See 65 FR 64746 (Oct. 30, 2000); and (11) public comments on the 2003 annual review and the preliminary Plan.

The 2004 detailed review focused first on Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) (Part 414) and Petroleum Refining (Part 419), which were identified in the preliminary Plan as offering the greatest potential for reducing hazard or risk to human health and the environment. EPA performed a review of technology innovation and process changes in these industrial categories. EPA considered cost and affordability of potential technologies options where data and information were available. EPA also considered whether new subcategories are needed for either of these categories. The purpose of the detailed investigation was to determine whether it would be appropriate to revise the existing effluent guidelines for these industrial categories. The results of the detailed review of the effluent guidelines for these two categories are presented in Section V.B., below.

EPA also conducted additional reviews of industrial categories suggested by stakeholders as offering potential for reducing hazard or risk based on available technologies. As part of these reviews, EPA considered not only the estimates of toxic-weighted pollutant discharges from the category, but also technological availability and affordability when the information was available. For example, commenters suggested that EPA scrutinize the provision in the coastal subcategory of the Oil and Gas Extraction effluent guidelines (40 CFR part 435, Subpart D) that allows for the discharge of produced water, drilling fluid, and cuttings in Cook Inlet, Alaska. The commenters suggested that this provision should be revised to conform to the effluent guidelines for coastal oil and gas extraction conducted elsewhere, which must meet a zero discharge requirements for these pollutants. EPA evaluated technology and economic factors for Cook Inlet facilities as part of its 2004 review of the effluent guidelines for Part 435 and determined based on these factors that it is not appropriate to schedule those guidelines for revision at this time (see DCN 01088, section 1.5).

c. Review of public comments on the 2003 Annual Review

EPA's annual review process has historically considered information provided by stakeholders regarding the need for new or revised effluent guidelines or regarding issues associated with effluent guidelines implementation and efficiency. For the 2004 annual review, EPA obtained information from public comments on the December 2003 Federal Register notice, discussions with stakeholder groups with an interest in the Effluent Guidelines Program, and with staff from States and EPA Regions charged with implementing effluent guidelines in NPDES permits, as well as from public comments submitted to EPA on the draft *Strategy*.

The Agency received 59 comments from a variety of commenters including industry and

industry trade associations, municipalities and sewerage agencies, environmental groups, other advocacy groups, two tribal governments, a private citizen, a Federal agency, and a State government agency. Stakeholder's suggestions played a significant role in the 2004 annual review of existing categories, as well as in EPA's assessment of potential new industrial categories under section 304(m)(1)(B). EPA's responses to comments are presented in this notice and in the Docket accompanying this notice. EPA contacted stakeholders, as necessary, for more information on their recommendations. EPA hopes that public review of the 2004 annual review and this final Plan and future annual reviews and final Plans will elicit additional information and suggestions for improving the Effluent Guidelines Program. To that end, EPA has established a docket for its 2005 annual review to provide the public with an opportunity to provide additional information to assist the Agency in its annual review. See section VI.

B. What were EPA's Findings from its Annual Review for 2004?

As a result of its 2004 annual review of all existing effluent guidelines, EPA is identifying vinyl chloride manufacturing, which is subject to the Organic Chemicals, Plastics, and Synthetic Fibers (Part 414) point source category, and chlor-alkali manufacturing, which is subject to the Inorganic Chemicals (Part 415) point source category, for possible effluent guidelines revisions. In section VII.A.2., below, EPA establishes a schedule for this rulemaking as required by section 304(m)(1)(A).

1. Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF)

EPA identified OCPSF in the preliminary Plan because during the 2003 annual review it ranked high in terms of toxic and non-conventional pollutant discharges among the industrial

point source categories investigated in the screening-level analyses. Three pollutants influenced OCPSF's hazard ranking: dioxin compounds, polycyclic aromatic compounds (PACs), and aniline. EPA's screening-level analysis during the 2003 annual review was based primarily on information reported to TRI for the year 2000. For the 2004 annual review, EPA obtained and reviewed additional information to supplement that data. One source was comments to the preliminary Plan. Data sources on dioxin generation and discharges included facility-provided information (see DCNs 00897, 00898, 00899, 01027, and 01034-01037, section 4.4), the Chlorine Chemistry Council (see DCN 01039, section 4.4), the Vinyl Institute (see DCN 01038, section 4.4), and EPA studies (see DCN 01088, section 1.5).

In general, industry comments stated that: (1) EPA's preliminary Plan prematurely identified target industries without demonstrating a compelling reason to pursue detailed study of these industries; (2) EPA's preliminary Plan deviates from the sound, risk-based focus of the Agency's draft *Strategy*; (3) EPA did not establish a credible link between estimated pollutant discharges from OCPSF facilities and actual water quality impairments; (4) EPA fell far short of its stated goal of involving the regulated community in the initial screening steps of the effluent guidelines planning process; and (5) EPA must ensure that treatment technologies for the OCPSF industry are both cost-effective and applicable to the wide variety of sites in the industry. One industry commenter provided specific data to correct reporting errors in the PCS database. Another industry commenter stated that using half of the detection limit for concentrations below detection limits overstates the actual pollutant discharges. The Vinyl Institute provided data on dioxin releases from ethylene dichloride (EDC), vinyl chloride monomer (VCM), and polyvinyl chloride (PVC) operations, including emission factors relating dioxin releases to production.

Industry commenters also stated that it was not appropriate to include chemical formulation, packaging, and repackaging (including adhesives and sealants) operations (CFPR) as an additional subcategory in the OCPSF point source category. Industry commenters assert that there is a clear distinction between CFPR and OCPSF industries because CFPR industries formulate products by mixing or blending without a chemical reaction while OCPSF industries perform chemical synthesis or reaction operations. Industry commenters further assert that formulation processes are much different than synthesis/reaction processes, with the result that the wastewaters are different and pollution prevention and treatment options are not the same.

Environmental commenters encouraged revision of the OCPSF effluent guidelines. Their comments were based on the magnitude of the OCPSF industry's pollutant loadings to surface waters, the apparent connection between the industry's discharges and impairment of receiving waters, and the availability of technologies that can mitigate pollution from the industry.

EPA identified over 1,500 facilities as OCPSF manufacturing facilities. During review of this industry, EPA found that the wastewater discharge hazard estimate for the entire OCPSF category was largely driven by only three sectors: aniline dischargers, coal tar refiners, and vinyl chloride manufacturing. Each of these is discussed below.

As part of its review of the OCPSF industry, EPA considered whether any subcategories should be added. For example, EPA identified in its preliminary Plan chemical formulating, packaging, and repackaging (including adhesives and sealants) operations (CFPR) as a possible additional subcategory because most CFPR dischargers are from facilities that also engage in other OCPSF operations. Although EPA is scheduling the OCPSF category for possible revision, EPA does not expect to promulgate national categorical effluent limitations guidelines for this

industrial subcategory at that time because the vast majority of the estimated toxic-weighted pollutant discharges were attributable to only a few facilities. Additionally, most facilities performing CFPR operations do not discharge wastewater. These few facilities with the vast majority of the estimated toxic-weighted pollutant discharges also engage in other chemical manufacturing operations already regulated by existing effluent guidelines and it is not clear how much of these discharges come from CFPR operations. Rather, EPA will consider assisting permitting authorities in identifying pollutant control and pollution prevention technologies for these facilities based on best professional judgment (BPJ). However, as EPA proceeds with its OCPSF rulemaking, EPA may reconsider this approach.

EPA also conducted a screening analysis of the potential impact from the discharge of nutrients (*i.e.*, nitrogen and phosphorus) from OCPSF facilities on receiving waters. Employing available data and using conservative assumptions (*i.e.*, the absence of all other sources of nitrogen and low flow conditions), EPA estimated that nutrient loads from 19 OCPSF facilities could potentially cause in-stream nitrogen concentrations to exceed the levels generally expected to be found in 25% of freshwater streams and rivers with the lowest concentrations nationally. (EPA recommends that States and Tribes begin development of nutrient standards by considering the nutrient levels found in the least impacted 25% of their waters.) EPA estimated that nutrient loads from four facilities could potentially cause in-stream nitrogen concentrations to exceed the levels generally expected to be found in the least impacted 50% of freshwater streams and rivers nationally. Using a similar analysis, EPA estimated that the discharge of phosphorus from OCPSF facilities would not cause in-stream phosphorus concentrations to exceed the levels generally expected to be found in the least impacted 25% of freshwater rivers and streams nationally. While

EPA will continue to examine nutrient issues as it moves forward with an effluent guidelines rulemaking for vinyl chloride and chlor-alkali manufacturing, based on this screening analysis, the discharge of nutrients from OCPSF facilities does not appear to support the development of national categorical effluent limitations for these pollutants at this time. The complete analysis is available in the Docket accompanying this notice.

EPA evaluated aniline wastewater discharge information from 3 direct dischargers and 12 indirect dischargers. The pollutants in these discharges result from the manufacture of aniline or dyes. Census information shows 38 dye manufacturers in the United States; however, this information is not specific enough to identify which dye manufacturers discharge aniline in their wastewater. According to EPA's National Risk Management Research Laboratory treatability database ([see http://www.epa.gov/ORD/NRMRL/treat.htm](http://www.epa.gov/ORD/NRMRL/treat.htm)), biological treatment is expected to achieve greater than 90% removal of aniline ([see DCN 01040](#), section 4.4). Additional information collected from POTWs that receive these aniline discharges supports the conclusion that aniline is well treated by the biological treatment at POTWs ([see DCNs 01041-01045](#), section 4.4). Furthermore, EPA did not find documentation that these aniline discharges contributed to POTW interferences or upsets. Moreover, one large aniline discharger discontinued operations after 2000 ([see DCN 01044](#), section 4.4). Therefore, based on the information in its docket at this time, EPA has concluded it is not appropriate to schedule for possible revision the limitations and standards for the aniline and dye production sectors at this time.

EPA has information on three companies that perform coal tar refining operations. These

three companies own ten facilities, with six currently in operation. EPA has 2000 TRI discharge data for four coal tar refining facilities. The primary pollutant contributing to the potential hazard estimated for discharges from these facilities is polycyclic aromatic compounds (PACs). This sector is declining, and the economic health of this sector is poor. Coal tar is formed as a byproduct during the process of producing metallurgical coke from coal, called coking. Coal tar refiners in North America have been faced with the challenge of dealing with a coal tar deficit due to the closing of several U.S. coke ovens. One of the three companies closed all three of its coal tar facilities since 2000. Another company shut down its only coal tar refining facility. The third company documented the declining production of coal tar and the potential substitution of bitumen as feedstock. Due to the small and declining number of facilities in this sector, the poor economic health of these facilities, and available discharge monitoring data indicating that these facilities are discharging PACs at or near treatable levels, EPA concluded that it is not appropriate to schedule for possible revision the effluent guidelines for the coal tar refining industrial sector at this time (see DCN 01088, section 1.5).

Dioxin is, by far, the pollutant primarily responsible for the OCPSF industry's very large toxic-weighted pollutant discharge. Dioxin is one of the most toxic and environmentally stable tricyclic aromatic compounds of its structural class. Due to its very low water solubility, most of the dioxin discharged to surface waters will adhere to sediments and suspended silts. Dioxin has a very great tendency to accumulate in aquatic life, from algae to fish. Due to its toxicity and ability to bioaccumulate, the various forms (congeners) of dioxin have high toxic weighting factors (TWFs). Consequently, even small mass amounts of dioxin discharges translate into high toxic weighted pounds equivalents (TWPEs). As previously stated, EPA estimated the hazard of the

discharged pounds of pollutants by calculating hazard scores using pollutant-specific TWFs.

Where data are available, these TWFs reflect both aquatic life and human health effects.

Multiplying the pounds of pollutants discharged by their TWFs results in an estimate of toxic-weighted pound equivalents (TWPE).

EPA reviewed dioxin discharge information available from several sources, including the TRI database, information collected by the Chlorine Chemistry Council (an industry group), and information provided by industry in response to EPA requests made under the authority of CWA section 308. Based on information in the docket, EPA believes the manufacture of ethylene dichloride (EDC) and vinyl chloride monomer (VCM) are sources of dioxin discharges. The manufacture of polyvinyl chloride (PVC) may also be a source of dioxin discharges. EPA refers to these collectively as vinyl chloride manufacturing. EPA found that the largest dioxin discharges (98% of the 2000 TRI toxicity-weighted dioxin discharges) occurred at large integrated facilities that also operated chlor-alkali plants (whose wastewaters are subject to the Inorganic Chemicals effluent guidelines (part 415)). However, based on information in the docket from one facility with stand-alone vinyl chloride operations, and from integrated facilities that have separately monitored their vinyl chloride operations, EPA believes that vinyl chloride manufacturing, with or without co-located chlor-alkali operations, has the potential to discharge significant amounts of dioxin. See section 6 of DCN 01088. While investigating the role of chlor-alkali plants in generating dioxins at large integrated organic chemical plants, EPA learned that dioxin discharges from stand-alone chlor-alkali plants are also significant (98,600 toxic-weighted pounds). EPA estimates that there are 20 facilities that perform vinyl chloride manufacturing operations (with no chlor-alkali operations), 24 facilities that perform chlor-alkali

operations (with no organic chemicals operations identified), and 12 facilities that perform both vinyl chloride and chlor-alkali manufacturing operations.

Based on information from the Chlorine Chemistry Council, EPA estimated that the 2000 dioxin discharges from 21 vinyl chloride and chlor-alkali manufacturing facilities (*i.e.*, 26 grams-TEQ) represented 24 million toxic weighted pounds equivalents (TWPE). The industry voluntarily verified the 2000 TRI dioxin data using outside consultants (see DCNs 00831-00834 and 01039, section 4.4). The industry is in the process of implementing corporate voluntary reduction strategies to reduce dioxin discharges to all media. These strategies have been extremely successful at some facilities. As a result, Chlorine Chemistry Council discharge information for 2002 indicates that 11 vinyl chloride and chlor-alkali manufacturing facilities reduced their wastewater discharges of dioxin from 22 million toxic-weighted pound-equivalents (23.8 grams-TEQ) in 2000 to 7 million toxic weighted pound-equivalents (7.6 grams-TEQ) in 2002. However, not all facilities have been successful in reducing their dioxin discharges. The data demonstrate that the overall estimated industry dioxin discharges are declining because some individual facilities have achieved significant reductions; however, other individual facilities are showing increases in dioxin discharges.

Therefore, because the vinyl chloride manufacturing sector of OCPSF discharges significant quantities of toxic weighted pound-equivalents, EPA is selecting the vinyl chloride manufacturing segment of the organic chemicals industry for possible revision. In addition, because many chlor-alkali operations are co-located with vinyl chloride manufacturing and because these operations discharge significant quantities of TWPEs, EPA also selected the chlor-alkali industrial segment of the inorganic chemicals industry for possible revision.

2. Petroleum Refining (Part 419)

In the preliminary Plan, EPA identified Petroleum Refining as a candidate for detailed analysis, because EPA's screening-level analysis indicated some petroleum refining facilities were discharging significant amounts of dioxin compounds, polycyclic aromatic compounds (PACs), and metal pollutants to surface waters. EPA's screening analysis during the 2003 review was based primarily on information reported to TRI for the year 2000. For the 2004 annual review, EPA obtained and reviewed additional information to supplement that data, including wastewater sampling data provided by the industry and the Washington State Department of Ecology, EPA's 1996 Petroleum Refining Preliminary Data Summary, and effluent data. Commenters on the preliminary Plan explained that 2000 was the first year industry was required to report releases of dioxin compounds and PACs to TRI. In addition, many industry commenters explained that their corporate policies require that the estimates of these pollutants be based on one half the detection level multiplied by total facility flow, regardless of whether these pollutants are detected in the final effluent by actual wastewater sampling data. Commenters also provided updates to the TRI information, as well as documentation supporting their statements that some of the information included errors.

With regard to PACs, TRI requires facilities to report the total releases of 21 specific pollutants as a single value for a PAC bulk parameter. EPA determined that most of the reported releases were not based on measured concentrations in refinery effluents. Even where effluent concentrations were measured and individual PACs were not detected, refineries estimated releases using one half the analytical detection limit and refinery effluent flow rate. Ten refineries have NPDES permit limits for either PAHs, as a class, or individual PACs. (PAHs are

polynuclear aromatic hydrocarbons, 16 compounds measured by Method 610. Eight individual compounds included in the PAH group are also included in the PAC compounds category reportable to TRI.) In 2000, none of the refineries reporting to PCS measured individual PACs above detection limits. Two of six refineries required to monitor for PAHs, as a class, reported PAH concentrations above detection limits. One of these two refineries also monitors for eight individual PACs - none of which were detected in 2000. In comments on the preliminary plan, the American Petroleum Institute provided effluent data collected at ten refineries in 1993/4. These data show individual PACs were never measured above analytical detection limits. Therefore, based on the information in the docket, EPA has concluded that there is little evidence that PACs are present in concentrations above the detection limit in refinery wastewater discharges.

EPA found that most petroleum refineries do not monitor for dioxins. For TRI reporting year 2000, 17 refineries reported wastewater dioxin releases. For 15 of the 17 dioxin-reporting refineries, reported releases either were not based on measured concentrations or, when dioxin congeners were not detected, releases were estimated using one half the analytical detection limit and refinery effluent flow. For two of the 17 dioxin-reporting refineries, the reported releases were based on measured concentrations in refinery effluents. EPA also reviewed PCS data and identified only three petroleum refineries that are required to monitor their effluent for the most toxic form of dioxin (*i.e.*, 2,3,7,8-TCDD or its equivalent). Only one of them detected dioxin in its effluent in 2000 (NPDES Permit No. CA0004961). Discharge monitoring data shows its discharge as 0.664 mg/yr TCDD-equivalents. In 1997, this facility completed an extensive study characterizing the source and characterization of dioxin in their wastewaters. (see DCN 00710, section 4.06). The study determined that storm water is the largest contributor to dioxin in the

final effluent (50%), with its coke pond and clean canal forebay as the second largest (45%). The facility also reported that the wastewater treatment plant (i.e., treated process wastewater) contributed 2% of the dioxins in the final effluent. In 1993, this refinery installed a granular activated carbon (GAC) treatment system that successfully removed 95 to 99 percent of the dioxins found in the washwater from its reformer catalyst regeneration operation. Two samples of GAC effluent were analyzed and the results reported as 0.012 pg/L TEQ for one sample and 0.00 pg/L TEQ for the other sample.

EPA also looked at wastewater sampling data from studies that four Washington state refineries were required, by their permits, to undertake, as well as data collected for the 1996 Preliminary Data Summary. High concentrations of dioxins, including 2,3,7,8-TCDD and 2,3,7,8-TCDF, were detected in catalytic reformer regeneration wastewaters. The Washington state refineries also detected high concentrations of dioxins in separator sludge collected at the time reformer catalyst regeneration wastewater was treated. In the treated wastewater effluent, two of the Washington refineries detected no dioxins, one detected octochlorodibenzo dioxin in one of two wastewater samples, and the fourth detected several dioxin congeners in several effluent samples. EPA concludes that most dioxins discharged to treatment in reformer catalyst regeneration wastewater settle with the solids and become part of the separator sludge. These sludges are being disposed of as hazardous wastes. Consequently, EPA concludes that while dioxins may be produced in high concentrations at petroleum refining facilities during catalytic reforming and catalyst regeneration operations, dioxins are only occasionally discharged and only in low concentrations in treated refinery effluent. In addition, sludges are properly handled as RCRA hazardous wastes. As a result, based on the information in its docket, EPA concludes that

consideration of national categorical limitations on dioxin in refinery discharges is not warranted at this time.

In 2004, EPA also reviewed its database for information on metal and other non-conventional pollutants. Based on information from Year 2000 reports in PCS, the top hazard loads of pollutants being discharged by refineries include metal pollutants, sulfide, and ammonia-nitrogen. Based on data as reported to PCS and TRI, metals contribute 17 to 22 percent of the toxicity-weighted pollutant discharges reported released by petroleum refineries in 2000. From its detailed review, EPA concludes that the concentration of metal pollutants in refinery wastewaters is at or near treatable levels, leaving little to no opportunity to reduce metals discharges through conventional end-of-pipe treatment. Further, EPA did not identify an in-process wastestream with high concentrations of metals, so could not identify appropriate in-process treatment technology or pollution prevention opportunities. The existing effluent guidelines for petroleum refining facilities include limitations for sulfide and ammonia-nitrogen. EPA's 2004 analysis of this information demonstrates that these pollutants are being discharged in concentrations at or near the detection level.

EPA also conducted a screening analysis to investigate the potential impact from the discharge of nutrients (*i.e.*, nitrogen and phosphorus) from petroleum refining facilities on the facilities' receiving waters. Employing available data and using conservative assumptions (*i.e.*, the absence of all other sources of nitrogen and low flow conditions), EPA estimated that nutrient loads from 12 petroleum refining facilities could potentially cause in-stream nitrogen concentrations to exceed the levels generally expected to be found in 25% of freshwater streams and rivers with the lowest concentrations nationally. (EPA recommends that States and Tribes

begin development of nutrient standards by considering the nutrient levels found in the least impacted 25% of their waters.) EPA estimated that nutrient loads from one facility could potentially cause in-stream nitrogen concentrations to exceed the levels generally expected to be found in the least impacted 50% of freshwater streams and rivers nationally. Using a similar analysis, EPA estimated that the discharge of phosphorus from petroleum refining facilities would not cause in-stream phosphorus concentrations to exceed the levels generally expected to be found in the least impacted 25% of freshwater rivers and streams nationally. Based on this screening analysis, the discharge of nutrients from petroleum refining facilities does not appear to support the development of national categorical effluent limitations for these pollutants at this time. The complete analysis is available in the Docket accompanying this notice.

In light of the foregoing information, EPA has concluded that scheduling the existing effluent guidelines for Petroleum Refining (Part 419) for possible revision to address dioxin or PACs or to revise the limitations on sulfide and ammonia-nitrogen would not be an appropriate use of the Agency's resources at this time.

Even though EPA has no present plans to revise the effluent guidelines for the petroleum refineries category to include limitations on dioxin or PACs, EPA notes that permit writers can include limitations for these pollutants on a case-by-case, best professional judgment basis under 40 CFR 125.3. Moreover, EPA encourages all permit writers and refineries to consider pollution prevention opportunities to the extent possible in developing and complying with permit limitations in the future. Indeed, EPA has received information on pollution prevention opportunities currently employed at refineries. In particular, the Washington State Department of Ecology published a document entitled "Water Pollution Prevention Opportunities in Petroleum

Refineries,” which describes opportunities in the area of general operating and maintenance practices and procedures, and design revisions and modifications to various refining processes.

As part of its review of the Petroleum Refining effluent limitations guidelines, EPA considered whether any additional subcategories should be added. EPA identified petroleum bulk stations and terminals (PBSTs) as a potential additional subcategory. In considering whether the Petroleum Refining effluent guidelines should be revised to address discharges from PBSTs, EPA gathered all readily available information during the 2004 annual review. EPA decided to consider PBSTs in its review of the Petroleum Refining point source category (Part 419) because of potential similarities in operations performed, wastewaters generated, and available pollution prevention and treatment options. EPA learned that large numbers of PBSTs discharge no toxic wastewater. Year 2000 TRI data indicate that two-thirds of the industry are zero-discharge facilities (335 of 502 TRI reporting facilities). Two of the facilities with high TWPE discharges of polynuclear aromatic compounds (PACs) in the PCS data base were associated with groundwater remediation, not discharges from PBST operations, according to comments received. These data are generally in agreement with what the Agency has been able to learn from control authorities across the country. By and large, control authorities believe that small dischargers prefer to collect their contaminated wastewaters (*e.g.*, contaminated storm water, tank bottoms water, and equipment wash water) and send them to a refinery or commercial recycler for oil recovery or ship them offsite for treatment. The use of Best Management Practices (BMPs) and pollution prevention techniques is becoming more widespread in this industrial sector, although EPA has no data as yet quantifying the effects of these measures.

Available data indicate that toxic discharges from this industry segment are contributed by

a small number of facilities. Only four facilities account for more than 95 percent of the total TWPE reported in Year 2000 TRI data. The top reporting facility represents more than 40 percent of the total TRI TWPE discharges and is no longer in operation. The number two facility, accounting for 33% of the total loading, is associated with a former refinery, and these discharges represented groundwater remediation discharges, not discharges associated with operation of the terminal. An assessment of the PCS data provides similar results. Only two facilities account for more than 99 percent of the total TWPE reported in Year 2000 PCS data. Given these toxic discharge distributions, EPA concluded that individual facility permit support, rather than a national effluent guidelines rulemaking, may be the most appropriate course of action.

While EPA is deferring the development of effluent guidelines for PBSTs as an additional subcategory under Part 419, EPA will continue to examine this industrial activity in future review cycles.

3. Review of Other Effluent Guidelines Promulgated under Section 304(b)

Table V-1 presents additional findings from EPA's 2004 annual review. The Table uses the following codes to describe the reasons EPA has decided at this time not to schedule for possible revision the effluent guidelines promulgated for particular industrial categories. More discussion on each point source category is presented in the Docket accompanying this notice.

- (1) Effluent guidelines for this industrial category were recently revised or reviewed through an effluent guidelines rulemaking.
- (2) A national effluent guidelines rulemaking is not the best tool for establishing technology-based effluent limitations for this industrial category because most of the toxic and non-conventional pollutant discharges are from one or a few facilities in this industrial

category. EPA will consider assisting permitting authorities in identifying pollutant control and pollution prevention technologies for the development of technology-based effluent limitations by best professional judgment (BPJ) on a facility-specific basis.

- (3) Not identified as a hazard or risk priority based on data available at this time.
- (4) Incomplete data available for full analysis. EPA intends to collect more information for the next annual review.
- (5) All or nearly all sources engaged in this industrial activity are indirect dischargers, subject to review under 304(g) not 304(b).

Table V-1: Findings from the 2004 Annual Review of Other Effluent Guidelines Promulgated under Section 304(b)

No.	Industry Category (Listed Alphabetically)	40 CFR Part	Findings [†]
1	Aluminum Forming	467	(3)
2	Aquatic Animal Production Industry	451	(1)
3	Asbestos Manufacturing	427	(3)
4	Battery Manufacturing	461	(3)
5	Canned and Preserved Fruits and Vegetable Processing	407	(3)
6	Canned and Preserved Seafood Processing	408	(3)
7	Carbon Black Manufacturing	458	(3)
8	Cement Manufacturing	411	(3)
9	Centralized Waste Treatment	437	(1)
10	Coal Mining	434	(1) and (3)
11	Coil Coating	465	(5)
12	Concentrated Animal Feeding Operations (CAFO)	412	(1)
13	Copper Forming	468	(3)
14	Dairy Products Processing	405	(3)

No.	Industry Category (Listed Alphabetically)	40 CFR Part	Findings†
15	Electrical and Electronic Components	469	(3)
16	Electroplating	413	(1)
17	Explosives Manufacturing	457	(3)
18	Ferroalloy Manufacturing	424	(3)
19	Fertilizer Manufacturing	418	(4)
20	Glass Manufacturing	426	(3)
21	Grain Mills	406	(3)
22	Gum and Wood Chemicals	454	(3)
23	Hospitals	460	(5)
24	Ink Formulating	447	(3)
25	Iron and Steel Manufacturing	420	(1)
26	Landfills	445	(1)
27	Leather Tanning and Finishing	425	(3)
28	Meat and Poultry Products	432	(1)
29	Metal Finishing	433	(1)
30	Metal Molding and Casting	464	(4)
31	Metal Products and Machinery	438	(1)
32	Mineral Mining and Processing	436	(3)
33	Nonferrous Metals Forming and Metal Powders	471	(3)
34	Nonferrous Metals Manufacturing	421	(4)
35	Oil and Gas Extraction	435	(1) and (4)
36	Ore Mining and Dressing	440	(4)
37	Paint Formulating	446	(3)
38	Paving and Roofing Materials (Tars and Asphalt)	443	(3)
39	Pesticide Chemicals	455	(3)
40	Petroleum Refining	419	See section V.B.2
41	Pharmaceutical Manufacturing	439	(1)

No.	Industry Category (Listed Alphabetically)	40 CFR Part	Findings†
42	Phosphate Manufacturing	422	(3)
43	Photographic	459	(3)
44	Plastic Molding and Forming	463	(3)
45	Porcelain Enameling	466	(3)
46	Pulp, Paper, and Paperboard	430	(1), (2), (4)
47	Rubber Manufacturing	428	(3)
48	Soaps and Detergents Manufacturing	417	(3)
49	Steam Electric Power Generation	423	(4)
50	Sugar Processing	409	(3)
51	Textile Mills	410	(4)
52	Timber Products Processing	429	(4)
53	Transportation Equipment Cleaning	442	(1) and (5)
54	Waste Combustors	444	(1)

†Note: The descriptions of the “Findings” codes are presented immediately prior to this table.

VI. EPA’s 2005 Review of Effluent Guidelines Promulgated Under Section 304(b).

As discussed in section V and further in section VII, EPA is coordinating its annual review obligation under CWA section 304(b) with the requirements to provide for public comment on a preliminary Plan and then publish a biennial Effluent Guidelines Program Plan under section 304(m). EPA’s 2003 review and public comments received on the preliminary Plan helped the Agency prioritize its analysis of existing categories during the 2004 review. The information gathered during the 2004 annual review, including the identification of data gaps in the analysis of certain existing industry categories, in turn provides a starting point for EPA’s 2005 annual review. See Table V-1 above and Section 5 of the Technical Support Document. In 2005, EPA

intends to conduct a screening-level analysis of all 56 industry categories and compare the results against those from previous years. Based on these results and other information gathered during previous years, EPA will conduct more detailed analyses of those industries that rank high in terms of toxic and non-conventional discharges among all point source categories. EPA specifically invites comment and data on the various 56 sets of effluent guidelines.

VII. The Final 2004 Effluent Guidelines Program Plan Under Section 304(m): Identification of Point Source Categories and Schedule for Future Effluent Guidelines Rulemakings

On December 31, 2003, EPA published and sought public comments on the preliminary Effluent Guidelines Program Plan for 2004/2005. See 68 FR 75515 (Dec. 31, 2003). The comment period closed on March 18, 2004. See 69 FR 6984 (Feb. 12, 2004). The Agency received 59 comments from a variety of commenters including industry and industry trade associations, municipalities and sewerage agencies, environmental groups, other advocacy groups, two tribal governments, a private citizen, a Federal agency, and a State government agency. Many of these public comments are discussed in today's notice. The Docket accompanying today's notice includes a complete set of all of the comments submitted, as well as the Agency's responses (see DCN 01026, section 4.0).

A. EPA's Schedule for Annual Review and Revision of Existing Effluent Guidelines Under Section 304(b)

1. Schedule for 2005 and 2006 Annual Reviews under Section 304(b)

As noted in section IV.B, CWA section 304(m)(1)(A) requires EPA to publish a plan

every two years that establishes a schedule for the annual review and revision, in accordance with section 304(b), of the effluent guidelines that EPA has promulgated under that section. Today's plan announces EPA's schedule for performing its section 304(b) reviews for 2005 and 2006. The schedule is as follows: to coordinate its annual review of existing effluent guidelines under section 304(b) with its publication of preliminary and final Effluent Guidelines Program Plan under CWA section 304(m). In other words, in odd-numbered years, EPA intends to complete its annual review upon publication of the preliminary Effluent Guidelines Program Plan that EPA must publish for public review and comment under CWA section 304(m)(2). In even-numbered years, EPA intends to complete its annual review upon the publication of the final Plan. EPA's 2005 annual review is the review cycle ending upon the publication of the preliminary Plan in 2005 and its 2006 annual review is the review cycle ending upon publication of the 2006 final Plan.

As previously mentioned, the CWA requires the final Plan to be published biennially with an opportunity for public comment. During the current planning cycle, EPA published the results of its 2003 review along with the preliminary Plan on December 31, 2003 (68 FR 75515). This gave EPA approximately five months to consider public comments and to gather and analyze additional data for the 2004 review and final 2004 Plan. EPA would expect to follow a similar schedule for the 2005 review and the preliminary and final 2006 Plan. Specifically, EPA intends to publish and take comment on the next preliminary Effluent Guidelines Plan in 2005. EPA will consider these public comments and take final action on the final 2006 Plan by August 26, 2006.

EPA is coordinating its annual reviews under section 304(b) with publication of plans under section 304(m) for several reasons. First, the annual review is inextricably linked to the planning effort, because the results of each annual review can inform the content of the

preliminary and final Effluent Guidelines Program Plans, e.g., by calling to EPA's attention point source categories for which EPA has not promulgated effluent guidelines. Second, even though not required to do so under either section 304(b) or section 304(m), EPA believes that the public interest is served by periodically presenting to the public a description of each annual review (including the review process employed) and the results of the review. Doing so at the same time EPA publishes preliminary and final plans makes both processes more transparent. Third, by requiring EPA to review all existing effluent guidelines each year, Congress appears to have intended that each successive review would build upon the results of earlier reviews. Therefore, by describing the 2004 annual review along with the 2004 effluent limitations guidelines Plan, EPA hopes to gather and receive data and information that will inform its review for 2005 and beyond.

2. Schedule for Possible Revision of Effluent Guidelines Promulgated Under Section 304(b).

EPA intends to start the rulemaking for the vinyl chloride and chlor-alkali industrial sectors in March 2005. Using its authorities under CWA section 308 and consistent with the requirements of the Paperwork Reduction Act, EPA, as its first rulemaking step, expects to develop and distribute a questionnaire to facilities within these sectors. These data becomes the foundation for any proposed rule because they provide the record basis for EPA's assessment of candidate technologies and their economic achievability. Therefore, only after gathering, validating and analyzing the data would EPA be ready to propose revised effluent guidelines for these sectors. Based on past experience, this stage of the process can take several years. EPA's schedule for this rulemaking also will need to take into account the need for the Agency to first focus on

guidelines rulemakings for the Airport Deicing Operations and the Drinking Water Supply and Treatment industrial sectors, which EPA is required under CWA section 304(m)(1)(C) to complete within three years. See Section VI.B, below. EPA is not scheduling any other existing effluent guidelines for rulemaking at this time. See Section V.B.1.

EPA emphasizes that announcing a rulemaking schedule for these point source categories does not constitute a final decision to revise the applicable effluent guidelines. Identifying an existing effluent guideline for possible revision is not the end of a regulatory process, but rather the beginning of one. EPA would make any such effluent guidelines revisions – supported by an administrative record following an opportunity for public comment – only in connection with a formal rulemaking process, subject to the authorities and constraints of CWA sections 301(b), 304(b) and 306 and the Administrative Procedure Act. At any point in this process, EPA may find that regulatory revisions are not appropriate and may discontinue regulatory revision efforts at that time. EPA would use the 304(m) planning process to announce and solicit public comment on any such decision. EPA would continue to review the existing effluent guidelines, however, as part of each annual review under section 304(b).

B. Identification of Point Source Categories Under CWA Section 304(m)(1)(B)

The Effluent Guidelines Program Plan must identify categories of sources discharging non-trivial amounts of toxic or non-conventional pollutants for which EPA has not published effluent limitations guidelines under section 304(b)(2) or new source performance standards (NSPS) under section 306. See CWA section 304(m)(1)(B). The Plan must also establish a schedule for the promulgation of effluent guidelines for the categories identified under section

304(m)(1)(B) not later than three years after such identification. See CWA section 304(m)(1)(C).

Today's 2004 Effluent Guidelines Program Plan identifies two industrial categories pursuant to section 304(m)(1)(B).

1. Process for Identifying Industrial Categories for Which EPA Has Not Promulgated Effluent Guidelines

The universe of industrial categories potentially subject to section 304(m)(1)(B) is limited.

First, this analysis applies only to industrial categories for which EPA has not promulgated effluent guidelines, not to unregulated subcategories or pollutants within a currently regulated industrial category. The distinction between a category (reflecting an industry as a whole) and a subcategory (reflecting differences among *segments* of the industry) has long been recognized by the U.S. Supreme Court. See, e.g., Chemical Mfrs. Ass'n v. NRDC, 470 U.S. 116, 130, 132 n.24 (1985). Thus, EPA's first decision criterion asks whether an industrial operation or activity in question is properly characterized – in a broad sense – as an industry “category” or more narrowly as a segment of that industry (i.e., a subcategory). The list of “categories of sources” set forth at section 306(b)(1)(A) (*e.g.*, pulp and paper mills, organic chemicals manufacturing, steam electric powerplants) suggests that this term encompasses a broad array of related industrial operations and is not meant to refer to specific activities within the industrial sector itself. The concept that “category” is a broad term is reinforced by section 304(b)(2) itself: When promulgating effluent limitations guidelines and standards for a “category,” EPA must take into account specific factors that, as the U.S. Supreme Court recognized, often lead to the use of “subcategories.” See E.I. du Pont de Nemours & Co. v. Train, 430 U.S. 112, 131 n.21 (1977). Indeed, the effluent guideline considered by the U.S. Supreme Court in du Pont was divided into 22 subcategories, each with its

own set of technology-based limitations reflecting variations in processes, products, and pollutants. Id. at 122 & nn 9 & 10.

EPA interprets section 304(m)(1)(B) in view of this long history and consequently construes that section to apply to categories, not subcategories, for which EPA has not promulgated effluent limitations guidelines and standards. This does not mean, however, that EPA ignores these subcategories. To the contrary, EPA considers the need to address additional subcategories and pollutants as part of its annual review of existing effluent guidelines. For example, as part of its annual review under CWA section 304(b), EPA reviewed the following industrial operations as potential additional subcategories of existing effluent guidelines: (1) Petroleum Bulk Stations and Terminals (SIC 5171), which EPA reviewed as a potential additional subcategory under Petroleum Refining (Part 419); and (2) Chemical Formulating, Packaging, and Repackaging (including Adhesives and Sealants) operations, which EPA reviewed as a potential additional subcategory under Organic Chemicals, Plastics, and Synthetic Fibers (Part 414).

The second criterion EPA considers when implementing section 304(m)(1)(B) also derives from the plain text of that section. By its terms, CWA section 304(m)(1)(B) applies only to industrial categories to which effluent guidelines under section 304(b)(2) or section 306 would apply, if promulgated. Therefore, for purposes of section 304(m)(1)(B), EPA would not identify industrial categories composed exclusively or almost exclusively of indirect discharging facilities regulated under section 307 (see section 304(g)) or categories for which other CWA controls take precedence over effluent guidelines, *e.g.*, POTWs regulated under CWA section 301(b)(1)(B) or municipal storm water runoff regulated under CWA section 402(p)(3)(B).

Third, the analysis under CWA section 304(m)(1)(B) applies only to industrial categories

of sources that are discharging non-trivial amounts of toxic or non-conventional pollutants to waters of the United States. EPA did not consider, under this analysis, industrial activities where conventional pollutants, rather than toxic or non-conventional pollutants, are the pollutants of concern. For example, although EPA had identified stormwater discharges from construction and development as a new category in its 2000 and 2002 effluent guidelines program plans, EPA is not identifying construction and development in this 2004 plan based on new information that discharges from this activity consist predominately of conventional pollutants under CWA §304(a)(4), in this case total suspended solids. In addition, even when toxic and non-conventional pollutants might be present in an industrial category's discharge, the analysis under 304(m)(1)(B) does not apply when those discharges occur in trivial amounts. EPA does not believe that it is necessary, nor was it Congressional intent, to develop national effluent guidelines for categories of sources that are likely to pose an insignificant risk to human health or the environment due to their trivial discharges. See Senate Report Number 50, 99th Congress, 1st Session (1985); WQA87 Legislative History 31. This decision criterion leads EPA to focus on those remaining industrial categories where, based on currently available information, new effluent guidelines have the potential to address a non-trivial hazard or risk to human health or the environment associated with toxic or non-conventional pollutants. Thus, EPA might judge in 2004, based on information available at that time, that the toxic and non-conventional pollutant discharges from sources within an industrial category are trivial, and then, based on changes in the industry or new information, reach a different conclusion in 2006 or later.

Moreover, priority-setting is intrinsic to any planning exercise, and EPA regards this criterion as a priority-setting tool. Because section 304(m)(1)(C) requires that EPA complete an

effluent guidelines rulemaking within three years of identifying an industrial category in a 304(m) plan, it is important that EPA have the discretion to prioritize its identification of new industrial categories so that it can use available resources effectively, and identify only those industrial categories where an effluent guideline is an appropriate tool to achieve environmental results. The Clean Water Act specifically contemplated that effluent guidelines would not be the only solution to all water quality problems.

EPA interprets section 304(m), including its requirement that EPA identify in a plan any industrial categories for which it might promulgate effluent guidelines, as a mechanism designed to promote regular and transparent priority-setting on the part of the Agency. A plan, ultimately, is a statement of choices and priorities. See Norton v. Southern Utah Wilderness Alliance, et al., 124 S. Ct. 2373, 2383 (2004). Identifying an industrial activity for possible effluent guideline rulemaking reflects EPA's view, at the time the plan is issued, that a national categorical regulation may be an appropriate tool to accomplish the desired environmental results. Similarly, announcing a schedule reflects EPA's assignment of priorities, taking into account all of the other statutory mandates and policy initiatives designed to implement the CWA's goals and the funds appropriated by Congress to execute them. By requiring EPA to publish its plan, Congress assured that EPA's priority-setting processes would be available for public viewing. By requiring EPA to solicit comments on preliminary plans, Congress assured that interested members of the public could contribute ideas and express policy preferences. Finally, by requiring publication of plans every two years, Congress assured that EPA would regularly re-evaluate its past policy choices and priorities (including whether to identify an industrial activity for effluent guidelines rulemaking) to account for changed circumstances. Ultimately, however, Congress left the

content of the plan to EPA's discretion – befitting the role that effluent guidelines play in the overall structure of the CWA and their relationship to other tools for addressing water pollution. Considering the full scope of the mandates and authorities established by the CWA, of which effluent guidelines are only a part, EPA needs the discretion to promulgate new effluent guidelines in a phased, orderly manner. Otherwise, EPA might find itself commencing an effluent guidelines rulemaking when none is actually needed for the protection of human health or the environment. By crafting section 304(m) as a planning mechanism, Congress has given EPA that discretion.

In its exercise of this discretion, EPA has identified two new candidates for effluent guidelines rulemaking for this final Plan: (1) Airport Deicing Operations; and (2) Drinking Water Supply and Treatment. Pursuant to section 304(m)(1)(C), EPA is scheduling two effluent guidelines rulemakings for these industrial point source categories and intends to take final action for each of these effluent guidelines rulemakings by **[INSERT DATE THREE YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. No other industrial category met the criteria of section 304(m)(1)(B).

As noted above, announcing a rulemaking schedule for these point source categories does not constitute a final decision that effluent guidelines in fact are appropriate for the identified point source categories. EPA would make any such effluent guidelines revisions – supported by an administrative record following an opportunity for public comment – only in connection with a formal rulemaking process, subject to the authorities and constraints of CWA sections 301(b), 304(b) and 306 and the Administrative Procedure Act. At any point in this process, EPA may find that promulgating effluent guidelines are not appropriate and may discontinue the rulemaking process at that time. EPA would use the 304(m) planning process to announce and solicit public

comment on any such decision.

2. Discharges from Airport Deicing Operations

In the preliminary Plan, EPA noted that it had inadequate data to determine if discharges from this industry were non-trivial, and stated that it would obtain more data in future planning cycles. Public comments on the preliminary Plan suggested that EPA consider developing effluent guidelines for this industrial sector because of the potential for facilities in this industrial sector to discharge non-trivial amounts of non-conventional and toxic pollutants. In particular, commenters stated that airport deicing fluid (ADF) is not properly recaptured and re-used or properly treated before discharge. Commenters also stated that these discharges can cause significant harm to natural resources such as fish kills, algae blooms, and contamination to surface or ground waters.

In the docket for the preliminary Plan, EPA's primary source of wastewater discharge information for this industry is its "Preliminary Data Summary: Airport Deicing Operations" which was published in August 2000 (EPA-821-R-00-016). This study focused on approximately 200 airports in the United States with potentially significant deicing/anti-icing operations. The major source of pollutant discharges from deicing operations is storm water contaminated by deicing agents, which typically contain water, glycols and additives. However, the study showed that there was great disparity among airports in terms of permit requirements. Some airports, generally those with stringent storm water discharge permits, had made great strides in terms of wastewater collection, containment, pollution prevention and/or recycling/treatment programs. Other airports, however, were much less advanced.

At the time of the study, EPA estimated that the industry annually discharged to surface

waters approximately 21 million gallons of ADF. EPA also estimated that full implementation of storm water permits would reduce these discharges to 17 million gallons annually. Finally, the study also estimated possible reductions in ADF discharges if effluent limitations guidelines and standards were implemented for discharges resulting from aircraft deicing operations. Using results from technologies and pollution prevention practices employed at some of the better performing airports, EPA estimated annual surface water discharges could be reduced to 4 million gallons. Due to the variety of ADFs in use and the limited information on the chemical composition of these ADFs, EPA was unable to estimate the toxic-weighted pollutant discharges associated with these potential effluent reductions. Following the publication of the preliminary Plan, EPA collected additional information and revisited the information in its docket.

Since the preliminary Plan, EPA conducted a review of current and proposed discharge permits for over twenty airports. This review indicates that while some airports have more stringent permits and have reduced their ADF discharges since EPA's earlier study was conducted, significant disparity continues among discharge requirements. For example, some airports are required to comply with numeric effluent limitations, e.g., 2 mg/L ADF, while others are required to meet non-numeric effluent limitations, in the form of BMPs. Monitoring requirements vary as well. Based on the information in its study and a review of this permit information, EPA has concluded that it is appropriate to identify the discharges from airport deicing operations in this final Plan and to take final action on effluent guidelines within three years of the publication of today's notice. See CWA section 304(m)(1)(C).

Consistent with CWA section 301(a), effluent guidelines for this point source category would only apply to wastewaters from airport deicing operations that are considered point source

discharges. In particular, wastewaters from airport deicing operations that discharge through a “conveyance used for collecting and conveying storm water” are considered point source discharges and are required to obtain NPDES permits (see 40 CFR 122.26). Like any NPDES permit, these permits must contain technology-based limits, and any more stringent limitations necessary to achieve applicable water quality standards. See CWA section 301(b)(2)(A) and 301(b)(1)(C). If EPA promulgates effluent limitation guidelines for this industrial category, technology-based limitations in such permits would need to be based on the applicable effluent guideline. See CWA section 301(b)(2)(A). As is currently the case, discharges from airport deicing operations that are non-point sources (*e.g.*, ADF shedding from the airplane after it leaves the airport) would not require an NPDES permit to discharge to navigable waters of the U.S. and would not be subject to any potential effluent guidelines. In other words, any new effluent guidelines for this point source category would affect the content of technology-based permit limitations, but would not change the universe of airports that are or are not required to obtain NPDES permits.

3. Drinking Water Supply and Treatment

EPA did not identify the Drinking Water Supply and Treatment industrial sector (SIC Code 4941) as a potential candidate for effluent guidelines development in the preliminary Plan. At that time, EPA concluded that almost all of the hazard posed by this industrial sector was due to a few facilities. In particular, EPA's analysis showed that a single facility was contributing over 96% of the toxic-weighted pollutant discharges included in PCS for the entire industrial sector. Public comments on the preliminary Plan suggested that EPA consider developing effluent

guidelines for this industrial sector because of the potential of drinking water supply and treatment plants to discharge non-trivial amounts of non-conventional and toxic pollutants (*e.g.*, metals and salts). In particular, commenters stated that many drinking water facilities have the potential to discharge significant quantities of conventional and toxic pollutants, and noted that the source of these pollutants can include drinking water treatment sludges and reverse osmosis reject wastewaters. Consequently, EPA attempted to collect additional information and re-evaluated the information in the docket supporting today's final Plan.

Based on information in the 1997 Economic Census, EPA estimates there are 3,700 drinking water treatment and supply facilities in the United States. EPA's primary source of wastewater data for this industry is EPA's Permit Compliance System (PCS). This database contains information required by the NPDES Permit Program for major dischargers across the country. A major discharger is any NPDES facility or activity classified as such by the Regional Administrator, or, in the case of approved State Programs, the Regional Administrator in conjunction with the State Director. Major industrial facilities are determined based on specific ratings criteria developed by EPA and approved State Programs. EPA does not require States to include data for other dischargers (*e.g.*, minor and indirect dischargers) in PCS, so little information is available about industries like this one that are dominated by minor and indirect dischargers. PCS lists approximately 900 drinking water supply and treatment facilities as having minor permits for the year 2000, but includes only limited data on discharge flow or pollutant concentrations for these dischargers. Consequently, EPA was unable to quantify discharges from these facilities. PCS also contained information on sixteen drinking water supply and treatment facilities with major permits for the year 2000 which EPA was able to analyze.

EPA found that the toxic-weighted pollutant discharges for these sixteen facilities ranged from significant to very low, with the majority attributable to the discharges from three facilities. Total residual chlorine and metals (*e.g.*, iron, manganese, and aluminum) represent most of the TWPE discharges from these three facilities. For the remaining 13 facilities, PCS data indicate that pollutants are being discharged at or near the detection levels, raising questions about further treatability of these pollutants using end-of-pipe treatment. More recent PCS information suggests the TWPE discharges at some of these sixteen facilities have decreased. In particular, two of the three facilities with top hazard scores for the year 2000 had significant reductions in their pollutant discharges within the last four years. One facility discontinued its wastewater discharges and the other facility recently added technology to properly dewater its wastewater treatment sludges which resulted in pollutant reductions of 85% or more.

While this PCS data suggest that many drinking water supply and treatment facilities with direct discharging permits are not discharging pollutants in significant concentrations, it also supports commenters' statements that some drinking water treatment and supply facilities may be discharging non-trivial amounts of toxic and non-conventional pollutants. Because EPA only has discharge data on a limited number of facilities in this category, and this data shows at least one facility with potentially non-trivial discharges, EPA cannot rule out the possibility that a significant number of the facilities in this category have non-trivial discharges. Therefore, EPA has decided to identify the drinking water supply and treatment industry sector in this final Plan and to complete an effluent guidelines rulemaking for this industry within three years. See CWA section 304(m)(1)(C). As the first step in this process, EPA will attempt to gather additional discharge data on this point source category.

Under Executive Order 12866, [58 Federal Register 51735 (October 4, 1993)] the Agency must determine whether a “regulatory action” is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines the term “regulatory action” is defined to include any substantive action by an agency (normally published in the Federal Register) that is expected to lead to the promulgation of a final rule or regulation. While EPA does not normally publish plans and priority-setting documents such as this 2004 Plan in the Federal Register, EPA is required by statute to do so here. The Order also 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

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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."

Pursuant to the terms of Executive Order 12866, it has been determined that this notice constitutes a "significant regulatory action" within the meaning of the Executive Order. EPA has thus submitted this notice to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

Dated:

Benjamin H. Grumbles,

Acting Assistant Administrator for Water.