(866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Comment Date: 5 p.m. Eastern Time on September 19, 2008.

Kimberly D. Bose,

Secretary.

[FR Doc. E8–21389 Filed 9–12–08; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EL08–87–000]

Electric Power Supply Association; Notice of Petition

September 8, 2008.

Take notice that on September 2, 2008, the Electric Power Supply Association filed a petition pursuant to Rule 207 of the Commission's Rules of Practice and Procedure (18 CFR 385.207) requesting guidance with respect to the question of when investments in publicly-held companies will be deemed to convey ''control'' or to result in ''affiliation'' for purposes of the Commission's market-based rate requirements under section 205 of the Federal Power Act (16 U.S.C. 824d) and the requirements of section 203 of the Federal Power Act (16 U.S.C. 824b) and the Commission's regulations thereunder.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Motions to intervene and protests must be served on the petitioner.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the ''eFiling'' link at *http://www.ferc.gov*. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at *http://www.ferc.gov*, using the ''eLibrary'' link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an ''eSubscription'' link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail *FERCOnlineSupport@ferc.gov*, or call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Comment Date: 5 p.m. Eastern Time on September 30, 2008.

Kimberly D. Bose,

Secretary.

[FR Doc. E8–21390 Filed 9–12–08; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–8715–5]

Clean Water Act Section 303(d): Availability of List Decisions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Availability.

SUMMARY: This notice announces the availability of EPA's Responsiveness Summary Concerning EPA's June 17, 2008 Public Notice of Final Decisions To Add Waters and Pollutants to Arkansas' 2006 Section 303(d) List.

On June 17, 2008, EPA published a notice in the **Federal Register** at Volume 73, Number 117, pages 34295–34296 providing the public the opportunity to review its final decisions to add waters and pollutants to Arkansas' 2006 Section 303(d) List as required by EPA's Public Participation regulations (40 CFR Part 25). Based on the Responsiveness Summary, EPA has decided to remove six waterbody pollutant combinations identified in EPA's Final Action on Arkansas' 2006 Section 303(d) list based on additional information provided by the Arkansas Department of Environmental Quality. Therefore, EPA has revised its decision to disapprove Arkansas' decisions not to list 73 water body-pollutant combinations instead of 79 waterbody pollutant combinations. A listing of these 73 water body pollutant-combinations along with priority rankings for inclusion on the 2006 Section 303(d) List can be found in Table 2 of EPA's Responsiveness Summary.

ADDRESSES: Copies of EPA's Responsiveness Summary Concerning EPA's June 17, 2008 Public Notice of Final Decisions to Add Waters and Pollutants to Arkansas; 2006 Section 303(d) List and the list of 73 waterbody-pollutant pairs can be obtained at EPA Region 6's Web site at *http://www.epa.gov/region06/water/npdes/tmdl/index.htm*, or by writing or calling Ms. Diane Smith at Water Quality Protection Division, U.S. Environmental Protection Agency Region 6, 1445 Ross Ave., Dallas, TX 75202–2733, telephone (214) 665–2145, facsimile (214) 665–6490, or e-mail: *smith.diane@epa.gov*. Underlying documents from the administrative record for these decisions are available for public inspection at the above address. Please contact Ms. Smith to schedule an inspection.

FOR FURTHER INFORMATION CONTACT: Diane Smith at (214) 665–2145.

SUPPLEMENTARY INFORMATION: Section 303(d) of the Clean Water Act (CWA) requires that each state identify those waters for which existing technology-based pollution controls are not stringent enough to attain or maintain state water quality standards. For those waters, states are required to establish Total Maximum Daily Loads (TMDLs) according to a priority ranking.

Consistent with EPA's regulations, Arkansas submitted to EPA its listing decisions under Section 303(d) on April 28, 2008. On June 6, 2008, EPA approved Arkansas' listing of 321 water body-pollutant combinations and associated priority rankings. EPA took neither an approval or disapproval action on 36 waters listed for beryllium. EPA disapproved Arkansas' decisions not to list 79 water body-pollutant combinations. Based on the public comments, EPA has revised its decision to disapprove Arkansas's decision not to list 73 water body-pollutant combinations. A listing of these 73 water body pollutant-combinations along with priority rankings for inclusion on the 2006 Section 303(d) List can be found in Table 2 of EPA's Responsiveness Summary.

Dated: September 5, 2008.

William K. Honker,

Deputy Director, Water Quality Protection Division, Region 6.

[FR Doc. E8–21498 Filed 9–12–08; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OW–2006–0771; FRL–8715–4]

RIN 2040–AE89

Notice of Final 2008 Effluent Guidelines Program Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Final 2008 Effluent Guidelines Program Plan.

SUMMARY: EPA establishes national technology-based regulations known as effluent guidelines and pretreatment standards to reduce pollutant discharges from categories of industry discharging directly to waters of the United States or discharging indirectly through Publicly Owned Treatment Works (POTWs). The Clean Water Act (CWA) sections 301(d), 304(b), 304(g), and 307(b) require EPA to review these effluent guidelines and pretreatment standards. This notice presents EPA's 2008 review of existing effluent guidelines and pretreatment standards. It also presents EPA's evaluation of indirect dischargers without categorical pretreatment standards to identify potential new categories for pretreatment standards under CWA sections 304(g) and 307(b). This notice also presents the final 2008 Effluent Guidelines Program Plan (''final 2008 Plan''), which, as required under CWA section 304(m), identifies any new or existing industrial categories selected for effluent guidelines rulemaking and provides a schedule for such rulemaking. CWA section 304(m) requires EPA to biennially publish such a plan after public notice and comment. The Agency published the preliminary 2008 Plan on October 30, 2007 (72 FR 61335). This notice also provides EPA's preliminary thoughts concerning its 2009 annual reviews under CWA sections 304(b) and 304(g) as well as its reviews under 301(d) and 307(b) and solicits comments, data and information to assist EPA in performing these reviews. EPA intends to continue its detailed studies of the steam electric power generating industry, the health services industry, and the coalbed methane extraction industry, which is part of the oil and gas extraction industry. Finally, EPA is using this notice to solicit public comment to identify industry sectors and facilities that use water efficiency practices that promote water efficiency, re-use, and recycling because such practices can be related to reducing overall pollutant discharges.

ADDRESSES: Submit your comments, data and information for the 2009 annual review, identified by Docket ID No. EPA–HQ–OW–2008–0517, by one of the following methods:

(1) *www.regulations.gov.* Follow the on-line instructions for submitting comments.

(2) *E-mail: OW-Docket@epa.gov,* Attention Docket ID No. EPA–HQ–OW–2008–0517.

(3) *Mail:* Water Docket, Environmental Protection Agency, Mailcode: 4203M, 1200 Pennsylvania Ave., NW., Washington, DC 20460, Attention Docket ID No. EPA–HQ–OW–2008–0517. Please include a total of 3 copies.

(4) *Hand Delivery:* Water Docket, EPA Docket Center, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC, Attention Docket ID No. EPA–HQ–OW–2008–0517. Such deliveries are only accepted during the Docket's normal hours of operation and special arrangements should be made.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OW–2008–0517. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *www.regulations.gov,* including any personal information provided, unless the comment 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 regulations.gov or e-mail. The federal regulations.gov Web site is an ''anonymous access'' system, 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 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.

Docket: All documents in the docket are listed in the index at *www.regulations.gov.* 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 at *www.regulations.gov* or in hard copy at the Water Docket in the EPA Docket Center, EPA/DC, EPA West, Room 3334, 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.

Key documents providing additional information about EPA's annual reviews and the final 2008 Effluent Guidelines Program Plan include the following:

- Technical Support Document for the 2008 Effluent Guidelines Program Plan, EPA–821–R–08–015, DCN 05515;
- Steam Electric Power Generating Point Source Category: 2007/2008 Detailed Study Report, EPA–821–R–08–011, DCN 05516;
- Coal Mining Detailed Study, EPA–821–R–08–012, DCN 05517;
- Health Services Industry Detailed Study: Dental Amalgam, EPA–821–R–08–014, DCN 05518; and
- Health Services Industry Detailed Study: Management and Disposal of Unused Pharmaceuticals (Interim Technical Report), EPA–821–R–08–013, DCN 05519.

FOR FURTHER INFORMATION CONTACT: Mr. Carey A. Johnston at (202) 566–1014 or *johnston.carey@epa.gov.*

SUPPLEMENTARY INFORMATION:

How Is This Document Organized?

The outline of this notice follows.

I. General Information

A. Does This Action Apply to Me?

This notice simply provides a statement of the Agency's effluent guidelines review and planning processes and priorities at this time, and does not contain any regulatory requirements.

B. What Should I Consider as I Prepare My Comments for EPA for the 2009 Annual Review?

1. Submitting Confidential Business Information

Do not submit this information to EPA through *www.regulations.gov* or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. Tips for Preparing Your Comments

When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, **Federal Register** date and page number).
- Follow directions—The agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible.
- Make sure to submit your comments by the comment period deadline identified.

II. Legal Authority

This 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), 306, 307(b), 308, 33 U.S.C. 1311(d), 1314(b), 1314(g), 1314(m), 1316, 1317(b), and 1318.

III. What Is the Purpose of This Federal Register Notice?

This notice presents EPA's 2008 review of existing effluent guidelines and pretreatment standards under CWA sections 301(d), 304(b), 304(g) and 307(b). It also presents EPA's evaluation of indirect dischargers without categorical pretreatment standards to identify potential new categories for pretreatment standards under CWA sections 304(g) and 307(b). This notice also presents the final 2008 Effluent Guidelines Program Plan (''final 2008 Plan''), which, as required under CWA section 304(m), identifies any new or existing industrial categories selected for effluent guidelines rulemaking and provides a schedule for such rulemaking. CWA section 304(m) requires EPA to biennially publish such a plan after public notice and comment. The Agency published the preliminary 2008 Plan on October 30, 2007 (72 FR 61335). This notice also provides EPA's preliminary thoughts concerning its 2009 annual reviews under CWA sections 301(d), 304(b), 304(g) and 307(b) and solicits comments, data and information to assist EPA in performing these reviews.

IV. Background

A. What Are Effluent Guidelines and Pretreatment Standards?

The CWA directs EPA to promulgate effluent limitations guidelines and standards (''effluent guidelines'') that reflect pollutant reductions that can be achieved by categories or subcategories of industrial point sources using technologies that represent the appropriate level of control. 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 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 (BOD_5), 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 (44 FR 44501). 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)(B)

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) and

(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 facilities 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 301(d), 304(b), 304(g), 304(m), and 307(b)?

1. EPA's Review and Planning Obligations Under Sections 301(d), 304(b), and 304(m)—Direct Dischargers

Section 304(b) requires EPA to review its existing effluent guidelines for direct dischargers each year and to revise such regulations ''if appropriate.'' 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 guidelines selected for possible revision as a result of that annual review. Section 304(m) also requires the plan to identify categories of sources discharging 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 (indicating that section 304(m)(1)(B) applies to ''non-trivial discharges.''). 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, providing for final action on such rulemaking not later than three years after the industrial category is identified in a final Plan.[1] See CWA section 304(m)(1)(C). EPA is required to publish its preliminary 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 practicable control technology (all pollutants), 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)(1), 304(b)(2) and 304(b)(4), respectively. For over three decades, EPA has implemented sections 301 and 304 through the promulgation of effluent limitations guidelines, resulting in regulations for 56 industrial categories. *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 sections 301(d) and 304(b) simultaneously.

2. EPA's Review and Planning Obligations Under Sections 304(g) and 307(b)—Indirect Dischargers

Section 307(b) requires EPA to revise its pretreatment standards for indirect dischargers ''from time to time, as control technology, processes, operating methods, or other alternatives change.'' See CWA section 307(b)(2). Section 304(g) requires EPA to annually review these pretreatment standards and revise them ''if appropriate.'' Although section 307(b) only requires EPA to revise existing pretreatment standards ''from time to time,'' section 304(g) requires an annual review. Therefore, EPA meets its 304(g) and 307(b) requirements by reviewing all industrial categories subject to existing categorical pretreatment standards on an annual basis to identify potential candidates for revision.

Section 307(b)(1) also requires EPA to promulgate pretreatment standards for pollutants not susceptible to treatment by POTWs or that would interfere with the operation of POTWs, although it does not provide a timing requirement for the promulgation of such new pretreatment standards. EPA, in its discretion, periodically evaluates indirect dischargers not subject to categorical pretreatment standards to identify potential candidates for new

[1] EPA recognizes that one court—the U.S. District Court for the Central District of California—has found that EPA has a duty to *promulgate* effluent guidelines within three years for new categories identified in the Plan. *See NRDC et al.* v. *EPA*, 437 F.Supp.2d 1137 (C.D. Ca, 2006). However, EPA continues to believe that the mandatory duty under section 304(m)(1)(C) is limited to providing a *schedule* for taking final action in effluent guidelines rulemaking—not necessarily promulgating effluent guidelines—within three years, and has appealed this decision.

pretreatment standards. The CWA does not require EPA to publish its review of pretreatment standards or identification of potential new categories, although EPA is exercising its discretion to do so in this notice.

EPA intends to repeat this publication schedule for future pretreatment standards reviews (*e.g.*, EPA will publish the 2009 annual pretreatment standards review in the notice containing the Agency's 2009 annual review of existing effluent guidelines and the preliminary 2010 plan). EPA intends that these contemporaneous reviews will provide meaningful insight into EPA's effluent guidelines and pretreatment standards program decision-making. Additionally, by providing a single notice for these and future reviews, EPA hopes to provide a consolidated source of information for the Agency's current and future effluent guidelines and pretreatment standards program reviews.

V. EPA's 2008 Review of Existing Effluent Guidelines and Pretreatment Standards Under CWA Sections 301(d), 304(b), 304(g), and 307(b)

A. What Process Did EPA Use To Review Existing Effluent Guidelines and Pretreatment Standards Under CWA Section 301(d), 304(b), 304(g), and 307(b)?

1. Overview

In its 2008 annual review, EPA reviewed all industrial categories subject to existing effluent limitations guidelines and pretreatment standards, representing a total of 56 point source categories and over 450 subcategories. EPA uses four factors in a phased approach to review existing effluent limitations guidelines and pretreatment standards: Pollutants discharged in an industrial category's discharge, current and potential pollution prevention and control technology options, category growth and economic considerations of technology options, and implementation and efficiency considerations of revising existing effluent guidelines or publishing new effluent guidelines (*see* December 21, 2006; 71 FR 76666). Examining these factors also helps the Agency to assess the extent to which additional regulation may contribute reasonable further progress toward the CWA's objective of restoring and maintaining the chemical, physical and biological integrity of the nation's waters, consistent with section 101 of the CWA.

EPA used this 2008 review to confirm the Agency's identification of industrial categories prioritized for further review in the preliminary 2008 Effluent Guidelines Program Plan (October 30, 2007; 72 FR 61335). EPA also continued work on four detailed studies as part of the 2008 annual review: Steam Electric Power Generating (Part 423), Coal Mining (Part 434), Oil and Gas Extraction (Part 435) (for the purpose of assessing whether to include coalbed methane extraction as a new subcategory), and Hospitals (Part 460).[2] These reviews discharged EPA's obligations to annually review both existing effluent limitations guidelines for direct dischargers and existing pretreatment standards for indirect dischargers under CWA sections 304(b) and (g), as well as other review requirements under CWA section 301(d) and 307(b).

Based on this review and prior annual reviews, and in light of the ongoing effluent guidelines rulemakings and detailed studies currently in progress, EPA is not identifying any existing categories for effluent guidelines rulemaking at this time, and is thus not establishing a schedule for further rulemaking at this time. EPA does, however, intend to continue its more focused detailed reviews in the 2009 and 2010 annual reviews of the effluent guidelines for the following categories: Steam Electric Power Generating (Part 423), Oil and Gas Extraction category (Part 435) (for the purpose of assessing whether to revise the limits to include Coalbed Methane extraction as a new subcategory), and Hospitals (Part 460) (which is part of the Health Services Industry detailed study). As part of its detailed study of the Coalbed Methane extraction industry, EPA is seeking approval from the Office of Management and Budget (OMB) for an Information Collection Request (ICR) to gather data from the industry (July 15, 2008; 73 FR 40575). EPA is also planning to submit a proposed ICR to OMB for the Health Services Industry; in particular, a study of unused pharmaceuticals from medical and veterinary facilities. This is a request for a new collection. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection (August 12, 2008; 73 FR 46903). See Sections V.B.2 and VII.D.

[2] Based on available information, hospitals consist mostly of indirect dischargers for which EPA has not established pretreatment standards. As discussed in Section VII.B, EPA is including hospitals in its review of the Health Services Industry, a potential new category for pretreatment standards. As part of that process, EPA will review the existing effluent guidelines for the few direct dischargers in the category.

2. How Did EPA's 2007 Annual Review Influence Its 2008 Annual Review of Point Source Categories With Existing Effluent Guidelines and Pretreatment Standards?

In view of the annual nature of its reviews of existing effluent guidelines and pretreatment standards, EPA believes that each annual review can and should influence succeeding annual reviews, *e.g.*, by indicating data gaps, identifying new pollutants or pollution reduction technologies, or otherwise highlighting industrial categories for additional scrutiny in subsequent years. During its 2007 annual review, which concluded in October 2007, EPA started or continued detailed studies of the existing effluent guidelines and pretreatment standards for the four industrial categories mentioned in the previous discussion: Steam Electric Power Generating (Part 423), Coal Mining (Part 434), Oil and Gas Extraction category (Part 435) (for the purpose of assessing whether to revise the limits to include Coalbed Methane extraction as a new subcategory), and Hospitals (Part 460) (which is part of the Health Services Industry detailed study). In addition, EPA used its 2007 annual reviews to identify three other industrial categories as candidates for further study in the 2008 reviews based on the toxic discharges reported to the Toxics Release Inventory (TRI) and Permit Compliance System (PCS): Ore Mining and Dressing (Part 440), Centralized Waste Treatment (Part 437), and Waste Combustors (Part 444). EPA published the findings from its 2007 annual review with its preliminary 2008 Plan (October 30, 2007; 72 FR 61335), making the pollutant discharge and industry profile data available for public comment. Docket No. EPA–HQ–OW–2006–0771. EPA used the findings, data and comments on the 2007 annual review to inform its 2008 annual review. The 2008 review also built on the previous reviews by incorporating some refinements to assigning discharges to categories and updating toxic weighting factors used to estimate the significance of toxic pollutant discharges. In its 2008 reviews, EPA completed its Coal Mining detailed study and the dental amalgam management detailed study for the Health Services Industry. As discussed below, EPA is not identifying these two industry sectors for an effluent guidelines rulemaking at this time. EPA does, however, intend to continue its more focused detailed reviews for the following categories and industry sectors in the next biennial planning cycle: Steam Electric Power Generating category, Oil and Gas Extraction

category (only to assess whether to revise the limits to include Coalbed Methane extraction as a new subcategory), and unused pharmaceutical management for the Health Services Industry (which includes the Hospital category).

3. What Actions Did EPA Take in Performing Its 2008 Annual Reviews of Existing Effluent Guidelines and Pretreatment Standards?

a. Screening-Level Review

The first component of EPA's 2008 annual review consisted of a screening-level review of all industrial categories subject to existing effluent guidelines or pretreatment standards. As a starting point for this review, EPA examined screening-level data from its 2007 annual reviews. In its 2007 annual reviews, EPA focused its efforts on collecting and analyzing data to identify industrial categories whose pollutant discharges potentially are the most significant. EPA primarily uses TRI and PCS data to estimate the mass of pollutant discharges from different industrial facilities. Because pollutant toxicities are different, EPA converted the toxic and non-conventional pollutant discharges that are reported in a mass unit (pounds) into a measure of relative toxicity (toxic-weighted pound equivalent or TWPE). EPA calculated the TWPE for each pollutant discharged by multiplying the pollutant specific toxic weighting factor (TWF) and the mass of the pollutant discharge. Where data are available, these TWFs reflect both aquatic life and human health effects. EPA ranked point source categories according to their discharges of toxic and non-conventional pollutants (reported in units of TWPE) to assess the significance of these toxic and non-conventional pollutant discharges to human health or the environment. EPA repeated this process for the 2008 annual reviews using the most recent TRI data (2005).

Next, EPA considered the availability of technologies to reduce pollutant discharges. EPA does not have, for all of the 56 existing industrial categories, information about the availability of treatment or process technologies to reduce pollutant wastewater discharges beyond the performance of the technologies upon which existing effluent guidelines and standards were developed. At present 46 states and one U.S. territory are authorized to administer the CWA NPDES program. Under the CWA, permitting authorities must include water-quality based effluent limits where the technology-based effluent limits are not sufficient to meet applicable water quality standards. Therefore, dischargers may have already installed technologies that reduce pollutant discharges to a level below the original technology-based requirements in order to meet such water-quality based effluent limitations.

A commenter on the preliminary 2008 Plan argued that EPA should conduct rulemaking to amend its effluent guidelines even where water quality-based controls have already controlled pollutant discharges (*see* EPA–HQ–OW–2006–0771–0847). EPA disagrees. Analyzing the significance of the remaining pollutant discharges is most useful for assessing the potential effectiveness of additional technologies because such an analysis focuses on the amount and significance of pollutant discharges that would actually be removed through new, technology-based nationally-applicable regulations for these categories. Where potential pollutant discharge reductions are not significant, there are likely few effective technology options for a technology-based rule. Once EPA determined which industries have the potential for significant additional pollutant removals, EPA further examined the availability of technologies for certain industries. For example, EPA identified technologies to minimize pollutant discharges from Steam Electric facilities (*see* Steam Electric Power Generating Point Source Category: 2007/2008 Detailed Study Report, EPA–821–R–08–011, DCN 05516).

EPA also considered whether there was a way to develop a suitable tool for comprehensively evaluating the availability and affordability of treatment or process technologies, but determined that there is not, because the universe of facilities is too broad and complex. EPA could not find a reasonable way to prioritize the industrial categories based on readily available engineering and economic data. In the past, EPA has gathered information regarding technologies and economic achievability for one industrial category at a time through detailed questionnaires distributed to hundreds of facilities within a category or subcategory for which EPA has commenced rulemaking. Such information-gathering is subject to the requirements of the Paperwork Reduction Act (PRA), 33 U.S.C. 3501, *et seq.* The information acquired in this way is valuable to EPA in its rulemaking efforts, but the process of gathering, validating and analyzing the data can consume considerable time and resources. To study one industry with this level of analysis generally takes 3 years at a cost to EPA of 1.5 to 3 million dollars. EPA does not think it is appropriate or feasible to conduct this level of analysis for all point source categories in conducting an annual review. Rather, EPA uses its analyses of existing pollutant discharges to identify the categories with the largest toxic weighted discharges. From this smaller list of categories, EPA evaluates the possibility of effective technologies and selects certain industries for examination (*e.g.*, Preliminary Category Reviews, Detailed Studies). In these more detailed reviews EPA evaluates technology options for better control of pollutant discharges and may conduct surveys or other data collection activities in order to better inform the decision on whether to initiate an effluent guidelines rulemaking. EPA solicits comment on how to develop tools for directly assessing technological and economic achievability in future annual reviews under section 301(d), 304(b), and 307(b) (*see* EPA–HQ–OW–2004–0032–2344). The full description of EPA's methodology for the 2008 review is presented in the Technical Support Document (TSD) for the final 2008 Plan (*see* DCN 05515).

EPA is continuously investigating and solicits comment on how to improve its analyses. EPA made a few such improvements to the review methodology from the 2007 to the 2008 annual review. As part of the 2008 review, EPA corrected the PCSLoads2004 and TRIReleases2004 databases, by addressing issues raised in comments (*e.g.*, updating TWFs and average POTW pollutant removal efficiencies for a number of pollutants) and collecting additional information from individual facilities that report to TRI or PCS.

EPA also continued to use the quality assurance project plan (QAPP) developed for the 2007 annual review to document the type and quality of data needed to make the decisions in this 2008 annual review and to describe the methods for collecting and assessing those data (*see* EPA–HQ–OW–2006–0771–0208). EPA performed quality assurance checks on the data used to develop estimates of toxic-weighted pollutant discharges (*i.e.*, verifying 2005 discharge data reported to TRI) to determine whether 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 TRI data for facilities that EPA had identified in its screening-level review as the significant dischargers.

Based on this methodology, EPA assigned those industrial categories with the lowest estimates of toxic-weighted

pollutant discharges a lower priority for revision (*i.e.*, industrial categories marked ''(3)'' in the ''Findings'' column in Table V–1 in section V.B.4 of today's notice).

Because there are 56 point source categories (including over 450 subcategories) with existing effluent guidelines and pretreatment standards that must be reviewed annually, EPA believes it is important to prioritize its review so as to focus on industries where changes to the existing effluent guidelines or pretreatment standards are most likely to result in further pollutant discharge reduction. In general, industries for which effluent guidelines or pretreatment standards have recently been promulgated are less likely to warrant such changes. However, when EPA becomes aware of the growth of a new industrial activity within an existing category or where new concerns are identified for previously unevaluated pollutants discharged by facilities within an industrial category, EPA would apply more scrutiny to the category in a subsequent review. EPA identified no such instance during the 2008 annual review. In order to further focus its inquiry during the 2008 annual review, EPA assigned a lower priority for potential revision to categories for which effluent guidelines had been recently promulgated or revised, or for which effluent guidelines rulemaking was currently underway (*i.e.*, industrial categories marked ''(1)'' in the ''Findings'' column in Table V–1 in section V.B.4 of today's notice). EPA removed an industrial point source category from further consideration during the current review cycle if EPA established, revised, or reviewed in a rulemaking context the category's effluent guidelines after August 2001 (*i.e.*, seven years prior to August 2008, the expected publication of the final 2008 Effluent Guidelines Program). EPA chose seven years because this is the time it customarily takes for the effects of effluent guidelines or pretreatment standards to be fully reflected in pollutant loading data and TRI reports (in large part because effluent limitations guidelines are often incorporated into NPDES permits only upon re-issuance, which could be up to five years after the effluent guidelines or pretreatment standards are promulgated). EPA also applied a lower priority for potential revision at this time to the Ore Mining and Dressing category as EPA lacked sufficient data to determine whether revision would be appropriate (*i.e.*, this category is marked with ''(5)'' in the ''Findings'' column in Table V–1 in section V.B.4 of today's notice). EPA lacks sufficient information at this time on the magnitude of the toxic-weighted pollutant discharges associated with this category. EPA will seek additional information on the discharges from this category in the next annual review in order to determine whether a detailed study is warranted. EPA typically performs a further assessment of the pollutant discharges before starting a detailed study of an industrial category. This assessment (''preliminary category review'') provides an additional level of quality assurance on the reported pollutant discharges and number of facilities that represent the majority of toxic-weighted pollutant discharges. See the appropriate section in the TSD for the final 2008 Plan (*see* DCN 05515) for EPA's data needs for these industrial categories.

For industrial categories marked ''(4)'' in the ''Findings'' column in Table V–1 in section V.B.4 of today's notice, EPA had sufficient information on the toxic-weighted pollutant discharges associated with these categories to continue a detailed study of these industrial categories in the 2008 annual review. EPA intends to use the detailed study to obtain information on hazard, availability and cost of technology options, and other factors in order to determine if it would be appropriate to identify the category for possible effluent guidelines revision. EPA will continue three detailed studies in the 2009 annual review: Steam Electric Power Generating category, Oil and Gas Extraction category (only to assess whether to revise the limits to include Coalbed Methane extraction as a new subcategory), and unused pharmaceutical management for the Health Services Industry (which includes the Hospital category).

As part of its 2008 annual 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 in a category accounted for the vast majority of toxic-weighted pollutant discharges (*i.e.*, categories marked ''(2)'' in the ''Findings'' column in Table V–1 in section V.B.4 of today's notice), EPA applied a lower priority for potential revision. EPA believes that revision of individual permits for such facilities may be more effective than a revised national effluent guidelines rulemaking. Individual permit requirements can be better tailored to these few facilities and may take considerably less time and resources to establish than a national effluent guidelines 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 05515). For these facilities, 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. For example, EPA developed and distributed a 2007 technical document to NPDES permit writers in order to support the development of effluent limitations for facilities in the dissolving kraft (Subpart A) and dissolving sulfite (Subpart D) subcategories of the pulp and paper point source category (40 CFR Part 430) (*see* EPA–HQ–OW–2006–0771–0774). 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 in previous biennial planning cycles urging the Agency to encourage and recognize 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 to human health or the environment associated with their effluent discharges would be a comparatively lower priority for effluent guidelines or pretreatment standards 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 indirectly account for the effects of successful voluntary programs because any significant reductions in pollutant discharges should be reflected in TRI 2005 discharge data, as well as any data provided directly by commenters, that EPA used to assess the toxic-weighted pollutant discharges.

In summary, EPA's review enables EPA to concentrate its resources on conducting more in-depth reviews of certain industries, as discussed below.

b. Further Review of Prioritized Categories

In the publication of the preliminary 2008 Plan, EPA identified three categories with potentially high TWPE discharge estimates for further investigation (''preliminary category

review'') as a result of the 2007 annual review: Ore Mining and Dressing (Part 440), Centralized Waste Treatment (Part 437), and Waste Combustors (Part 444) (*i.e.*, EPA identified these categories with ''(5)'' in the column entitled ''Findings'' in Table V–1, Page 61345 of the preliminary 2008 Plan). EPA reviewed these three categories in its 2008 annual review.

EPA typically performs a further assessment of the pollutant discharges before starting a detailed study of an industrial category. In conducting these preliminary category reviews, EPA used the same types of data sources used for the detailed studies but in less depth. This assessment provides confirmation of the reported pollutant discharges and number of facilities that represent the majority of toxic-weighted pollutant discharges. EPA may also develop a preliminary list of potential wastewater pollutant control technologies before conducting a detailed study.

c. Detailed Study of Four Categories

EPA continued detailed studies of four categories: Steam Electric Power Generating (Part 423), Coal Mining (Part 434), Oil and Gas Extraction (Part 435) (only to assess whether to include coalbed methane extraction as a new subcategory), and Hospitals (Part 460) (which is part of the Health Services Industry detailed study). For these industries, EPA gathered and analyzed additional data on pollutant discharges, economic factors, and technology issues. EPA examined: (1) Wastewater characteristics and pollutant sources; (2) the pollutants discharged from these sources and the toxic weights associated with these 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) The 2002 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) monitoring data included in facility applications for NPDES permit renewals (Form 2C data); (7) EPA effluent guidelines technical development documents; (8) relevant EPA preliminary data summaries or study reports; (9) technical literature on pollutant sources and control technologies; (10) information provided by industry including industry conducted survey and sampling data; (11) CWA section 308 data requests and surveys; and (12) stakeholder comments (*see* DCN 06109). Additionally, in order to evaluate available and affordable treatment technology options for the coalbed methane extraction industry sector, EPA is seeking approval from the Office of Management and Budget (OMB) for an Information Collection Request (ICR) to gather data from the industry (July 15, 2008; 73 FR 40757). EPA is also planning to submit a proposed ICR to OMB for the Health Services Industry; in particular, a study of unused pharmaceuticals from medical and veterinary facilities. This is a request for a new collection. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection (August 12, 2008; 73 FR 46903).

d. Public Comments

EPA's annual review process considers information provided by stakeholders regarding the need for new or revised effluent limitations guidelines and pretreatment standards. To that end, EPA established a docket at the time of publication of the final 2006 Plan to provide the public with an opportunity to submit additional information to assist the Agency in its 2007 and 2008 annual reviews. These public comments are in the supporting docket (EPA–HQ–OW–2006–0771, *www.regulations.gov*) and summarized in the TSD for the final 2008 Plan (*see* DCN 05515).

B. What Were EPA's Findings From Its 2008 Annual Review for Categories Subject to Existing Effluent Guidelines and Pretreatment Standards?

1. Screening-Level Review

In its 2008 screening level review, EPA considered significance of remaining pollutant discharges and the other factors described in section A.3.a. above in prioritizing effluent guidelines for potential revision. See Table V–1 in section V.B.4 of today's notice for a summary of EPA's findings with respect to each existing category; see also the TSD for the final 2008 Plan. Out of the categories subject only to the screening level review in 2008, EPA is not identifying any for effluent guidelines rulemaking at this time, based on the factors described in section A.3.a above and in light of the resources EPA is currently expending in effluent guidelines rulemakings and detailed studies. Specifically, EPA is engaged in rulemaking relating to the Construction and Development Point Source Category, the Airport De-icing Point Source Category; and the Concentrated Animal Feeding Operations Point Source Category.

2. Detailed Studies

In its 2008 annual review, EPA continued detailed studies of four industrial point source categories with existing effluent guidelines and pretreatment standards: Steam Electric Power Generating (Part 423), Coal Mining (Part 434), Oil and Gas Extraction (Part 435) (to assess whether to include coalbed methane extraction as a new subcategory), and Hospitals (Part 460) (which is part of the Health Services Industry detailed study). EPA is investigating whether the pollutant discharges reported to TRI and PCS for 2004 and 2005 accurately reflect the current discharges of the industry. EPA, through these detailed studies, analyzes the reported pollutant discharges, technology innovation, and process changes in these industrial categories. Additionally, EPA considers whether there are industrial activities not currently subject to effluent guidelines or pretreatment standards that should be included with these existing categories, either as part of existing subcategories or as potential new subcategories.

EPA completed the Coal Mining detailed study and the dental amalgam management detailed study for the Health Services Industry. As described below in more detail, EPA is not identifying either of these industries for an effluent guidelines rulemaking in this final 2008 Plan. EPA will continue the other detailed studies (*i.e.*, Steam Electric Power Generating, Coalbed Methane Extraction, and Health Services Industry (unused pharmaceutical management)) to determine whether EPA should identify in the future any of these industries for possible revision of their existing effluent guidelines and pretreatment standards. Three of these four industries are described below. EPA's review of hospitals (including dental amalgam and unused pharmaceuticals) is described in section VII.B (Health Services Industry detailed study).

a. Steam Electric Power Generating (Part 423)

The Steam Electric Power Generating effluent guidelines (40 CFR 423) apply to a subset of the electric power industry, namely those facilities ''primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilizing fossil-type fuel (coal, oil, or gas) or nuclear fuel in conjunction with

a thermal cycle employing the steam water system as the thermodynamic medium.'' See 40 CFR 423.10. EPA's most recent revisions to the effluent guidelines and standards for this category were promulgated in 1982 (*see* 47 FR 52290; November 19, 1982).

EPA has focused efforts for the 2007/2008 Detailed Study for the Steam Electric Power Generating point source category on certain discharges from coal-fired power plants. The study sought to: (1) characterize the mass and concentrations of pollutants in wastewater discharges from coal-fired steam electric facilities; and (2) identify the pollutants that comprise a significant portion of the category's TWPE discharge estimate and the corresponding industrial operation. EPA's previous annual reviews have indicated that the toxic-weighted loadings for this category are predominantly driven by the metals present in wastewater discharges, and that the waste streams contributing the majority of these metals are associated with ash handling and wet flue gas desulfurization (FGD) systems (*see* EPA–HQ–OW–2004–0032–2781). Other potential sources of metals include coal pile runoff, metal/chemical cleaning wastes, coal washing, and certain low volume wastes. EPA is continuing to collect data for the detailed study through facility inspections, wastewater sampling, a data request that was sent to a limited number of companies, and various secondary data sources (*see* Steam Electric Power Generating Point Source Category: 2007/2008 Detailed Study Report, EPA–821–R–08–011, DCN 05516).

EPA's data collection efforts are primarily focused on coal-fired power plants, with particular interest in FGD wastewater treatment, the management of ash sluice water, and water reuse opportunities. EPA's site visit program gathers information on the types of wastewaters generated by coal-fired steam electric power plants, as well as the methods of managing these wastewaters to allow for recycle, reuse, or discharge. EPA conducted site visits at 16 coal-fired power plants and is continuing to identify potential site visit candidates to assess FGD systems using different scrubber designs or sorbents, and facilities operating or planning to install different types of treatment and water reuse options.

Between July and October of 2007, EPA conducted five sampling episodes to characterize untreated wastewaters generated by coal-fired power plants, including FGD scrubber purge, fly ash sluice, bottom ash sluice, and combined fly- and bottom ash sluice. EPA also collected samples to assess the effluent quality from different types of treatment systems currently in place at these operations. Samples collected during the five episodes were analyzed for metals and other pollutants, such as total suspended solids and nitrogen. Site-specific sampling episode reports are in the docket for the 2008 Plan (EPA–HQ–OW–2006–0771, *www.regulations.gov*). These reports discuss the specific sample points and analytes, the sample collection methods used, the field quality control (QC) samples collected, and the analytical results for the wastewater samples.

EPA is continuing to identify potential sampling candidates to evaluate additional types of FGD wastewater treatment systems, including advanced biological metals removal processes and chemical precipitation systems. EPA plans to conduct wastewater sampling at one or more additional plants in 2008 or early 2009.

EPA also collected facility-specific information using a data request conducted under authority of CWA section 308 (*see* EPA–HQ–OW–2006–0771–0417). In May 2007, EPA distributed this data request to nine companies that operate a number of coal-fired power plants with wet FGD systems. The data request complements the wastewater sampling effort as it requested facility-specific information about wastewaters, and identifies management practices, for facilities not included in EPA's sampling program. Responses were received in August and October 2007 and characterized operations at 30 coal-fired power plants. EPA conducted technical reviews of the data received and resolved questions with the individual companies before entering the information into a database (*see* DCNs 05754 and 05755). The data request collected information on selected wastewater sources, air pollution controls, wastewater management and treatment practices, water reuse/recycle, and treatment system capital and operating costs.

The Utility Water Act Group (UWAG) provided EPA with a database that contains selected NPDES Form 2C data for 86 coal-fired plants operated by UWAG's member companies, namely those plants that operate wet FGD systems or wet fly ash sluice systems. The database provides facility information, data on facility outfalls, process flow diagrams, wastewater treatment information, and intake and effluent characteristics. Data are provided for the FGD, ash sluice, and coal pile runoff wastestreams.

EPA is also in the process of contacting vendors and conducting literature searches to collect additional information on wastewater treatment technology options and wastewater reuse opportunities for particular waste streams. The Electric Power Research Institute (EPRI) is conducting bench- and pilot-scale tests on FGD wastewater treatment technologies, including chemical precipitation, ion exchange, and biological metals removal.

EPA intends to continue its detailed review of the Steam Electric Power Generating point source category in the 2009 and 2010 annual reviews of effluent guidelines. Wastewater sampling at a facility operating a treatment system of interest was delayed by nearly one year due to operational conditions at the plant. In addition, several other plants recently began operating a new generation of FGD wastewater treatment technology that may achieve substantially better pollutant reductions of metals and nutrients than EPA has evaluated to date. EPA believes it is important to evaluate the performance of these technologies, as well as the processes being investigated by EPRI, prior to concluding the detailed study. As noted above, EPA has not yet completed its wastewater sampling activities. The UWAG Form 2C database was recently delivered to EPA; however, EPA has not had sufficient time to fully evaluate this data. The database provides substantial information on wastewater generation and wastewater management and treatment practices for a large number of plants. EPA believes it is important to take additional time to evaluate the Form 2C data, in concert with EPA's sampling data and the responses to EPA's data request. EPA also intends to continue investigating water reuse opportunities to assess the degree to which they may yield pollutant reductions for discharges of ash sluice and FGD wastewater.

b. Coal Mining (Part 434)

As discussed in the final 2006 Plan and preliminary 2008 Plan, EPA conducted a detailed study during the 2007 and 2008 annual reviews to evaluate the merits of comments received from a public interest group and from states and industry urging revisions to pollutant limitations in the Coal Mining effluent guidelines (40 CFR Part 434) (*see* December 21, 2006; 71 FR 76644–76667, and October 30, 2007; 72 FR 61342–61343).

The public interest group, the Environmental Law and Policy Center, asked EPA to place more stringent controls on Total Dissolved Solids

(TDS) (*e.g.*, sulfates and chlorides), mercury, cadmium, manganese, and selenium in coal mining discharges. They referenced a study by EPA Region 5 on potential adverse impacts of the discharge of sulfates on aquatic life (*see* EPA–HQ–OW–2004–0032–2614 through 2617).

The Interstate Mining Compact Commission, which represents mining regulatory agencies in 28 states, state mine permitting agencies in Pennsylvania and Virginia, and a few mining companies, asked EPA to remove the current manganese limitations. *They made the following requests and assertions*: (1) Permittees should be allowed to employ best management practices as necessary to reduce manganese discharges based on the water quality of receiving waterbodies; (2) manganese treatment is unnecessary to protect aquatic life and there are no widespread toxicity problems from discharges of manganese; (3) manganese treatment doubles or triples overall treatment costs resulting in the forfeiture of Surface Mining Control and Reclamation Act (SMCRA) bonds; (4) EPA should reconsider its rationale for setting manganese limits to ensure surrogate removal of other metals because data show that other metals occur only in low concentrations; (5) manganese treatment sometimes results in environmental harm because mining operators must add excessive chemicals to meet the discharge limits; and (6) because manganese limits are overly stringent they discourage the use of passive treatment technologies which are more environmentally beneficial than active treatment.

Individual state and industry commenters cited the following factors in support of their comments: (1) More stringent state-imposed coal mining reclamation bonding requirements, enacted after the promulgation of SMCRA, to control water discharges from mines undergoing reclamation; (2) studies supporting their contention that manganese is not harmful to aquatic life at levels above the current effluent limits; and (3) perception that active treatment with chemical additions may complicate permit compliance and may cause environmental harm.

EPA initiated the Coal Mining Detailed Study in January 2007. The study is consistent with the framework presented in the Detailed Study Plan, a draft of which the Agency placed into the docket (*see* EPA–HQ–OW–2004–0032–2312) during the fall of 2006. EPA revised and finalized the Detailed Study Plan in April 2007 to reflect public comments. The study evaluated treatment technologies, costs, and pollutant discharge loads, as well as the effects of manganese and other pollutants on aquatic life. The study also addressed the question of whether bonds are being forfeited because of the cost of manganese treatment by examining bonding and trust fund requirements, past bond forfeiture rates, future potential bond forfeiture rates, and the issues related to state assumption of long-term water treatment responsibilities for mines where the bonds have been forfeited.

As outlined in the Detailed Study Plan, EPA framed study questions based on public comment, identified data sources to help answer the study questions, developed a methodology for estimating treatment costs and discharge loads, and initiated data collection activities with the Interstate Mining Compact Commission, state agencies, and the Office of Surface Mining, Reclamation, and Enforcement within the U.S. Department of the Interior. In responding to these public comments the study used Part 434 definitions to describe the industry. In particular, proper understanding of the following terms is useful in understanding the following discussion and EPA's response to the public commenters:

- The term ''acid or ferruginous mine drainage'' means mine drainage which, before any treatment, either has a pH of less than 6.0 or a total iron concentration equal to or greater than 10 mg/l (*see* 40 CFR 434.11(a)).
- The term ''active mining area'' means the area, on and beneath land, used or disturbed in activity related to the extraction, removal, or recovery of coal from its natural deposits. This term excludes coal preparation plants, coal preparation plant associated areas and post-mining areas (*see* 40 CFR 434.11(b)).
- The term ''alkaline mine drainage'' means mine drainage which, before any treatment, has a pH equal to or greater than 6.0 and total iron concentration of less than 10 mg/l (*see* 40 CFR 434.11(c)).
- The term ''bond release'' means the time at which the appropriate regulatory authority returns a reclamation or performance bond based upon its determination that reclamation work (including, in the case of underground mines, mine sealing and abandonment procedures) has been satisfactorily completed (*see* 40 CFR 434.11(d)).
- The term ''post-mining area'' means: (1) A reclamation area or (2) the underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release (*see* 40 CFR 434.11(k)).
- The term ''reclamation area'' means the surface area of a coal mine which has been returned to required contour and on which re-vegetation (specifically, seeding or planting) work has commenced (*see* 40 CFR 434.11(l)).

The study also notes that EPA has promulgated manganese effluent guidelines only for a subset of coal mining operations at Part 434: (1) Active surface and underground mining areas with acid mine drainage discharges (*see* Subpart C—Acid or Ferruginous Mine Drainage); and (2) post-mining areas with underground acid mine drainage discharges (*see* Subpart E—Post Mining Areas). Finally, as part of this study EPA identified the technology basis from prior Coal Mining effluent guidelines rulemakings that supported the promulgation of manganese effluent guidelines (''chemical precipitation and settling'') and reviewed the current application of this technology.

EPA also reviewed scientific literature and conducted interviews with state regulatory personnel in order to assess comments concerning the toxic effects of manganese and whether coal mining discharges of other pollutants are of concern. EPA's review found that manganese discharges to surface water may have widely varying effects depending on water chemistry, and that manganese impacts are not well understood. Different aquatic species have a wide range of tolerance limits (*see* DCN 05517). The toxic effects of manganese are chronic rather than acute. Manganese may cause long-term population declines through reduced fertility and survivability. Headwaters areas, where most Appalachian coal mining has occurred and will continue to occur, are especially sensitive to manganese toxicity.

EPA clarified States' comments regarding the costs of EPA's coal mining manganese effluent guidelines. In their initial public comments, State commenters did not distinguish the costs of manganese removal among the three phases of coal mining: Active mining areas, post-mining areas, and post-bond release areas. This is important as EPA's manganese effluent guidelines only apply to a subset of coal mining areas. As documented in EPA's meetings and site visits, States indicated that they are most concerned about the cost of manganese treatment at *surface* post-mining areas where bonds cannot be released because water discharges exceed permit limits (*see* DCN 05517). States expressed a concern that operators at such mines may default rather than renew their bonds as required every five years. States indicated that reduced manganese

treatment costs at such mines can decrease the number of potential bond forfeitures. However, EPA is not able to address this issue through revisions to the Coal Mining effluent guideline because there are no manganese effluent guidelines for *surface* post-mining areas. EPA's review of State data indicates that these manganese effluent limits are derived from State manganese water-quality standards or site specific best professional judgment (BPJ) technology-based effluent limits. There are manganese effluent guidelines for post-mining areas with *underground* acid mine drainage discharges. As discussed below, EPA is not reopening those existing effluent guidelines applicable to underground acid mine drainage because the record continues to indicate that these existing guidelines are appropriate for these discharges.

EPA reviewed the Technical Development Documents supporting the Coal Mining effluent guidelines and did not identify any discussion regarding promulgating manganese effluent guidelines to ensure surrogate removal of other metals (*see* DCN 06117). EPA's review of these documents showed that EPA's rationale for requiring manganese control for a subset of coal mines was to address drinking water organoleptic effects. Additionally, EPA found no evidence to support state and industry comments that over-dosages or spills of treatment chemicals have caused fish kills and other significant stream damage.

EPA reviewed the cost and performance of passive treatment systems and concluded that they are less expensive than active treatment systems, but their effectiveness is generally limited to removal of manganese from alkaline discharges. As noted above, there are no manganese Coal Mining effluent guidelines for alkaline discharges for all three phases of coal mining. As for surface post-mining areas, EPA's review of State data indicates that manganese effluent limits for alkaline discharges are derived from State manganese water-quality standards or site specific BPJ technology-based effluent limits.

In conducting its study EPA also reviewed the costs of manganese treatment, which coal mining companies use to comply with manganese effluent limits derived from State manganese water-quality standards or site-specific BPJ technology-based effluent limits. Based on information received from the States of Pennsylvania and West Virginia, EPA concluded that only a small percentage of coal mine bond forfeitures are due to the cost of manganese treatment (*see* DCN 05517).

Overall, EPA found that there is little potential for future forfeiture of bonds on SMCRA permits that have been granted during the past five years or will be granted in the future. EPA's analysis indicates that forfeitures are largely a legacy of the first decade of SMCRA implementation during the 1980s and early 1990s. In particular, SMCRA requires an analysis of Probable Hydrologic Consequence (PHC) prior to approval of the SMCRA permit approval in order to identify regional hydrologic impacts associated with the coal mining and reclamation operation. The PHC is a determination of baseline ground water and surface water quality and quantity conditions and the impact the proposed mining will have on these baseline conditions. When potential adverse impacts are identified (*e.g.*, acid mine drainage (AMD)) through use of the PHC, appropriate protection, mitigation, and rehabilitation plans are developed and included in mining and reclamation permit requirements or if the potential adverse impacts cannot be sufficiently mitigated the SMCRA permit may be denied. The ultimate goal of using the PHC in the SMCRA permit review is to prevent acid mine drainage (AMD) after land reclamation is complete and the SMCRA bond is released. PHC analytical techniques were not sophisticated enough during the 1980s to adequately predict AMD and this lack of accuracy led to inadequate controls on AMD. Science supporting the PHC analysis has subsequently improved to the point where the Pennsylvania Department of Environmental Protection anticipates that less than 1 percent of recently SMCRA permitted mines will develop AMD after reclamation and bond release.

In response to comments from the Environmental Law and Policy Center, which asked EPA to place more stringent controls on manganese, TDS, selenium, mercury, and cadmium in coal mining discharges, EPA conducted a literature review regarding these pollutants in coal mining discharges. In particular, EPA reviewed recently initiated, long-term studies of coal mining discharges of TDS, being conducted by EPA Region 3 and Office of Research and Development (*see* DCN 06110).

EPA is not identifying its existing effluent guidelines for the Coal Mining point source category (Part 434) for an effluent guidelines rulemaking at this time. In response to State and industry comments, EPA's review indicated that manganese removal does double or triple treatment costs, but for active surface and underground mining areas with acid mine drainage discharges (regulated by Subpart C) and post-mining areas with underground acid mine drainage discharges (regulated by Subpart E) manganese treatment technology is available, economically achievable, and compliance rates with permit limits derived from the management effluent guidelines are high (*see* DCN 05517). In response to comments from the Environmental Law and Policy Center, EPA did not have sufficient information at this time to identify this category for an effluent guidelines rulemaking to regulate these pollutants. Additionally, commenters did not provide any such data for this annual review. As with all categories subject to existing effluent guidelines, EPA will continue to examine the effluent guidelines for this industrial category in future annual reviews to determine if revision may be appropriate.

c. Oil and Gas Extraction (Part 435)

EPA identified the coalbed methane (CBM) sector as a candidate for a detailed study in the final 2006 Effluent Guidelines Program Plan (71 FR 76656; December 21, 2006). As part of that announcement EPA made it clear that it would conduct data collection through an information collection request (ICR) to support this detailed study. In accordance with the Paperwork Reduction Act (PRA) EPA must seek Office of Management and Budget (OMB) approval for an ICR. EPA also provided notice of this ICR in the preliminary 2008 Plan (72 FR 61343; October 30, 2007) and in two separate **Federal Register** notices (January 25, 2008; 73 FR 4556 and July 15, 2008; 73 FR 40757). EPA is conducting this detailed study and data collection to determine whether it would be appropriate to initiate an effluent guidelines rulemaking to control pollutants discharged in coalbed methane (CBM) produced water.

CBM extraction requires removal of large amounts of water from underground coal seams before CBM can be released. CBM wells have a distinctive production history characterized by an early stage when large amounts of water are produced to reduce reservoir pressure which in turn encourages release of gas. This is followed by a stable stage when quantities of produced gas increase as the quantities of produced water decrease; and a late stage when the amount of gas produced declines and water production remains low (*see* EPA–HQ–OW–2004–0032–1904). The

quantity and quality of water that is produced in association with CBM development varies from basin to basin, within a particular basin, from coal seam to coal seam, and over the lifetime of a CBM well.

Pollutants often found in these wastewaters include chloride, sodium, sulfate, bicarbonate, fluoride, iron, barium, magnesium, ammonia, and arsenic. Total dissolved solids (TDS) and electrical conductivity (EC) are bulk parameters that States typically use for quantifying and controlling the amount of pollutants in CBM produced waters.

Controlling the sodicity of the CBM produced waters is equally important in preventing environmental damage. Sodicity is often quantified as the sodium adsorption ratio (SAR), which is expressed as the ratio of sodium ions to calcium and magnesium ions. Sodicity is an important factor in controlling the produced water's suitability for irrigation as sodic soils are subject to severe structural degradation and restrict plant performance through poor soil-water and soil-air relations. All of these dissolved inorganic parameters can potentially affect environmental impacts as well as potential beneficial uses of CBM produced water.

Impacts to surface water from discharges of CBM produced waters can be severe depending upon the quality of the CBM produced waters. These discharges have variable effects depending on the biology of the receiving stream. Some waterbodies and watersheds may be able to absorb the discharged water while others are sensitive to CBM produced water discharges. For example, large lakes or rivers with sufficient dilution capacity or marine waters are less sensitive to saline discharges than smaller receiving water bodies. Discharge of these CBM produced waters may also cause erosion and in some cases irreversible soil damage from elevated TDS concentrations and SAR values. This may limit future agricultural and livestock uses of the water and watershed.

Currently, regulatory controls for CBM produced waters vary from State to State and permit to permit (*see* EPA–HQ–OW–2004–0032–2782, 2540). There is very limited permit information (*e.g.*, effluent limits, restrictions) in PCS and TRI for this industrial sector. Consequently, EPA is gathering additional information from State NPDES permit programs and industry on the current regulatory controls across the different CBM basins.

Coalbed methane (CBM) extraction activities accounted for about 10 percent of the total U.S. natural gas production in 2006 and are expanding in multiple basins across the U.S. Currently, the Department of Energy's Energy Information Administration (EIA) expects CBM production to remain an important source of domestic natural gas over the next few decades.

As discussed in section A.1, EPA's review of existing effluent guidelines considers four factors: pollutants discharged in an industrial category's effluent, current and potential pollution prevention and control technology options, category growth and economic considerations of technology options, and implementation and efficiency considerations of revising existing effluent guidelines or publishing new effluent guidelines. EPA will use the CBM ICR to collect technical and economic information from a wide range of CBM operations to address these factors in greater detail (*e.g.*, geographical and geologic differences in the characteristics of CBM produced waters, environmental data, current regulatory controls, availability and affordability of treatment technology options). Response to EPA's questionnaire is mandatory for recipients and EPA will administer the questionnaire using its authority under Section 308 of the CWA, 33 U.S.C. 1318.

In 2007 and 2008, EPA worked with a range of stakeholders (*e.g.*, industry representatives; Federal, State, and Tribal representatives; public interest groups and landowners; and water treatment experts) to obtain information on the industry and its CBM produced water management practices. EPA's outreach started with teleconferences and then continued with a series of meetings and site visits in the major CBM basins. In total, EPA contacted over 700 people in eight states during more than 60 outreach and data collection activities in 2007 and 2008 (*e.g.*, meetings, teleconferences, site visits) (*see* EPA–HQ–OW–2006–0771–0977 and 1124). EPA also solicited public comment through two separate **Federal Register** notices on the draft survey and supporting statement (January 25, 2008; 73 FR 4556 and July 15, 2008; 73 FR 40757). This outreach helped the development of the ICR as EPA incorporated data, comments, and suggestions from industry and other stakeholders into the questionnaire. EPA intends to distribute the two-phased questionnaire to industry following OMB approval (*see* Section 5(d) of the ICR's Supporting Statement, Part A, EPA–HQ–OW–2006–0771–1119). EPA will process the survey data it collects and plans to present preliminary results on available and affordable technology options in the preliminary 2010 Plan.

3. Results of Further Review of Prioritized Categories

During the 2007 annual review, EPA identified three categories with potentially high TWPE discharge estimates (*i.e.*, industrial point source categories with existing effluent guidelines identified with ''(5)'' in the column entitled ''Findings'' in Table V–1, Page 61345 of the preliminary 2008 Plan). During the 2008 annual review EPA continued to collect and analyze information on these three industrial categories: Ore Mining and Dressing (Part 440), Centralized Waste Treatment (Part 437), and Waste Combustors (Part 444). EPA is not identifying any of these three categories for an effluent guidelines rulemaking in this final 2008 Plan (*see* Sections 6, 8, and 11 of DCN 05515). EPA concluded its preliminary category review of the Centralized Waste Treatment and Waste Combustors categories in the 2008 annual review and has determined that these categories are no longer among those industrial categories, currently regulated by existing effluent guidelines, that cumulatively comprise 95% of the reported discharges (reported in units of toxic-weighted pound equivalent or TWPE) (*see* DCN 05515). Since these two are not among the list of industry categories that cumulatively comprise 95% of the reported discharges, EPA has identified these two categories as low priorities for effluent guideline revisions at this time. EPA will maintain its preliminary category review for the Ore Mining and Dressing category in the 2009 annual review (*i.e.*, this category is marked with ''(5)'' in the ''Findings'' column in Table V–1 in section V.B.4 of today's notice). The docket accompanying this notice presents a summary of EPA's findings on these three industrial categories (*see* DCN 05515).

For the Ore Mining and Dressing category (Part 440), EPA lacks sufficient information at this time on the magnitude of the toxic-weighted pollutant discharges. EPA will seek additional information on the discharges from this category in the next annual review in order to determine whether a detailed study is warranted. EPA typically performs a further assessment of the pollutant discharges before starting a detailed study of an industrial category. This assessment provides an additional level of quality assurance on the reported pollutant discharges and number of facilities that represent the majority of toxic-weighted pollutant discharges. EPA may also

develop a preliminary list of potential wastewater pollutant control technologies before conducting a detailed study. See the appropriate section in the TSD for the final 2008 Plan (*see* DCN 05515) for EPA's data needs for these industrial categories.

For the Waste Combustors category (Part 444), EPA used information from TRI and PCS databases, as well as facility contacts, in its preliminary category review. TRI-reported discharges of pesticides accounted for the vast majority of the Waste Combustors category's TWPE identified in the 2008 preliminary plan. EPA contacted six waste combustor facilities to collect information on pesticides and received confirmation that pesticides were not detected in combustor wastewaters. Specifically, EPA determined that the TRI-reported pesticide releases from waste combustor facilities are generally estimated using characterization reports from clients and treatment efficiency data, rather than actual sampling data. Chapter 11 of the 2008 Technical Support Document for this Plan presents more details on EPA's findings on the Waste Combustors category (*see* DCN 05515). Based on this review EPA is not identifying this category for an effluent guidelines rulemaking at this time.

For the Centralized Waste Treatment category (Part 437), EPA also used information from TRI and PCS databases, as well as facility contacts, in its preliminary category review. TRI-reported discharges of pesticides accounted for the vast majority of the Centralized Waste Treatment category's TWPE identified in the 2008 preliminary plan. EPA contacted five Centralized Waste Treatment facilities to collect information on pesticides and received confirmation that pesticides were not detected in four of the five facility wastewaters. Specifically, EPA determined that the TRI-reported pesticide releases from centralized waste treatment facilities are generally estimated using characterization reports from clients and treatment efficiency data, rather than actual sampling data. Only one of the five Centralized Waste Treatment facilities contacted detected pesticides; however, the amount reported to TRI was greater than the amount actually measured. This error will be corrected in future TRI reports from the facility. Chapter 6 of the 2008 Technical Support Document for this Plan presents more details on EPA's findings on the Centralized Waste Treatment Category (*see* DCN 05515). Based on this review EPA is not identifying this category for an effluent guidelines rulemaking at this time.

4. Summary of 2008 Annual Review Findings

EPA reviewed all categories subject to existing effluent guidelines and pretreatment standards in order to identify appropriate candidates for revision. Based on this review, and in light of effluent guidelines rulemakings and detailed studies currently in progress, EPA is not identifying any existing categories for effluent guidelines rulemaking. EPA is, however, conducting detailed studies for three existing categories: Steam Electric Power Generating category, Oil and Gas Extraction category (only to assess whether to revise the limits to include Coalbed Methane extraction as a new subcategory), and unused pharmaceutical management for the Health Services Industry (which includes the Hospital category).

A summary of the findings of the 2008 annual review is presented below in Table V–1. This table uses the following codes to describe the Agency's findings with respect to each existing industrial category.

(1) Effluent guidelines or pretreatment standards for this industrial category were recently revised or reviewed through an effluent guidelines rulemaking, or a rulemaking is currently underway.

(2) Revising the national effluent guidelines or pretreatment standards is not the best tool 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 priority based on data available at this time (*e.g.,* not among industries that cumulatively comprise 95% of discharges as measured in units of TWPE).

(4) EPA intends to continue a detailed study of this industry in its 2009 annual review to determine whether to identify the category for effluent guidelines rulemaking.

(5) EPA is continuing or initiating a preliminary category review because incomplete data are available to determine whether to conduct a detailed study or identify for possible revision. EPA typically performs a further assessment of the pollutant discharges before starting a detailed study of the industrial category. This assessment provides an additional level of quality assurance on the reported pollutant discharges and number of facilities that represent the majority of toxic-weighted pollutant discharges. EPA may also develop a preliminary list of potential wastewater pollutant control technologies before conducting a detailed study. See the appropriate section in the TSD (*see* DCN 05515) for EPA's data needs for industries with this Finding (5).

TABLE V–1—FINDINGS FROM THE 2008 ANNUAL REVIEW OF EFFLUENT GUIDELINES AND PRETREATMENT STANDARDS CONDUCTED UNDER SECTION 301(D), 304(B), 304(G), AND 307(B)

No.	Industry category (listed alphabetically)	40 CFR part	Findings*
1	Aluminum Forming	467	(3)
2	Asbestos Manufacturing	427	(3)
3	Battery Manufacturing	461	(3)
4	Canned and Preserved Fruits and Vegetable Processing	407	(3)
5	Canned and Preserved Seafood Processing	408	(3)
6	Carbon Black Manufacturing	458	(3)
7	Cement Manufacturing	411	(3)
8	Centralized Waste Treatment	437	(3)
9	Coal Mining	434	(3)

[3] Based on available information, hospitals consist mostly of indirect dischargers for which EPA has not established pretreatment standards. As discussed in section VII.D, EPA is including hospitals in its review of the health Services Industry, a potential new category for pretreatment standards. As part of that process, EPA will review the existing effluent guidelines for the few direct dischargers in the category.

TABLE V–1—FINDINGS FROM THE 2008 ANNUAL REVIEW OF EFFLUENT GUIDELINES AND PRETREATMENT STANDARDS CONDUCTED UNDER SECTION 301(D), 304(B), 304(G), AND 307(B)—Continued

No.	Industry category (listed alphabetically)	40 CFR part	Findings*
10	Coil Coating	465	(3)
11	Concentrated Animal Feeding Operations (CAFO)	412	(1)
12	Concentrated Aquatic Animal Production	451	(1)
13	Copper Forming	468	(3)
14	Dairy Products Processing	405	(3)
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	(3)
20	Glass Manufacturing	426	(3)
21	Grain Mills	406	(3)
22	Gum and Wood Chemicals	454	(3)
23	Hospitals[3]	460	(4)
24	Ink Formulating	447	(3)
25	Inorganic Chemicals‡	415	(1) and (3)
26	Iron and Steel Manufacturing	420	(1)
27	Landfills	445	(3)
28	Leather Tanning and Finishing	425	(3)
29	Meat and Poultry Products	432	(1)
30	Metal Finishing	433	(1)
31	Metal Molding and Casting	464	(3)
32	Metal Products and Machinery	438	(1)
33	Mineral Mining and Processing	436	(3)
34	Nonferrous Metals Forming and Metal Powders	471	(3)
35	Nonferrous Metals Manufacturing	421	(3)
36	Oil and Gas Extraction	435	(4)
37	Ore Mining and Dressing	440	(5)
38	Organic Chemicals, Plastics, and Synthetic Fibers‡	414	(1) and (3)
39	Paint Formulating	446	(3)
40	Paving and Roofing Materials (Tars and Asphalt)	443	(3)
41	Pesticide Chemicals	455	(3)
42	Petroleum Refining	419	(3)
43	Pharmaceutical Manufacturing	439	(3)
44	Phosphate Manufacturing	422	(3)
45	Photographic	459	(3)
46	Plastic Molding and Forming	463	(3)
47	Porcelain Enameling	466	(3)
48	Pulp, Paper, and Paperboard	430	(3)
49	Rubber Manufacturing	428	(3)
50	Soaps and Detergents Manufacturing	417	(3)
51	Steam Electric Power Generating	423	(4)
52	Sugar Processing	409	(3)
53	Textile Mills	410	(3)
54	Timber Products Processing	429	(3)
55	Transportation Equipment Cleaning	442	(3)
56	Waste Combustors	444	(3)

* **Note:** The descriptions of the ''Findings'' codes are presented immediately prior to this table.

‡ **Note:** Two codes (''(1)'' and ''(3)'') are used for this category as both codes are applicable to this category and do not overlap. The first code (''(1)'') refers to the on-going effluent guidelines rulemaking for the Chlorinated Hydrocarbon (CCH) manufacturing sector, which includes facilities currently regulated by the OCSPF and Inorganics effluent guidelines. The second code (''(3)'') indicates that the discharges from the remaining facilities in these two categories do not represent priorities at this time.

VI. EPA's 2009 Review of Existing Effluent Guidelines and Pretreatment Standards Under CWA Sections 301(d), 304(b), 304(g), and 307(b)

As discussed in section V and further in section VIII, EPA is coordinating its annual and periodic reviews of existing effluent guidelines and pretreatment standards under CWA sections 301(d), 304(b), 307(b) and 304(g) with the publication of preliminary Plans and biennial Plans under section 304(m). Public comments received on EPA's prior reviews and Plans helped the Agency prioritize its analysis of existing effluent guidelines and pretreatment standards during the 2008 review. The information gathered during the 2008 annual review, including the identification of data gaps in the analysis of certain categories with existing regulations, in turn, provides a starting point for EPA's 2009 annual review. See Table V–1 above. In 2009, EPA intends to again conduct a screening-level analysis of all 56 categories and compare the results against those from previous years. EPA will also conduct more detailed analyses of those industries that rank high in terms of the significance of their toxic and non-conventional discharges among all point source categories. Additionally, EPA intends to continue its detailed studies of the following categories: Steam Electric Power Generating category, Oil and Gas Extraction category (only to assess whether to revise the limits to include

Coalbed Methane extraction as a new subcategory), and unused pharmaceutical management for the Health Services Industry (which includes the Hospital category). EPA is identifying the Ore Mining and Dressing category for a preliminary category review in the 2009 annual review. EPA invites comment and data on the three detailed studies, the preliminary category review, and all remaining point source categories.

As part of the 2009 annual review EPA is also taking the opportunity to solicit information on industrial sectors that use water efficiency practices that promote water efficiency, re-use, or recycling. EPA is seeking this information to inform its evaluation of technology options across multiple industrial sectors.

Water efficiency practices can reduce the amount of pollutants discharged by industrial facilities, especially for those facilities that have on-site wastewater treatment systems, but also for those without them. EPA's effluent guidelines rulemakings and reviews have documented numerous examples of industrial facilities employing water conservation as a means to meet effluent limitations based on promulgated effluent guidelines (*see* documents listed in Section 12.1 of EPA–HQ–OW–2004–0032–2783.1).

In addition, reducing water use will also reduce associated costs (and energy requirements) for industry. As significant users of water, industry is becoming aware of the importance of measuring, managing, and controlling water use. Water scarcity can limit industrial growth and many industrial sectors have substantially increased water re-use in the past 15 years, through reclaiming industrial wastewater for non-potable applications (where reclaimed industrial wastewater is used for non-potable applications). Moreover, the cost savings of implementing water re-use and reduction technologies and pollution prevention practices can be significant, with payback periods often measured within a few months or years.

In addition, this data solicitation will also help implement EPA's National Water Program strategy for responding to climate change (*see* DCN 06114). The National Water Program is developing a draft strategy to identify potential impacts of climate change for clean water and drinking water programs and define actions to respond to these impacts (*see* Key Action #5 in DCN 06115). A March 28, 2008, memorandum signed by the Assistant Administrator for Water requests comments on the draft strategy (*see* DCN 06116). Section IX solicits specific information on industrial sectors and facilities that use model water efficiency practices that promote water efficiency, re-use, or recycling.

VII. EPA's Evaluation of Categories of Indirect Dischargers Without Categorical Pretreatment Standards To Identify Potential New Categories for Pretreatment Standards

A. EPA's Evaluation of Pass Through and Interference of Toxic and Non-conventional Pollutants Discharged to POTWs

All indirect dischargers are subject to general pretreatment standards (40 CFR 403), including a prohibition on discharges causing ''pass through'' or ''interference.'' See 40 CFR 403.5. All POTWs with approved pretreatment programs must develop local limits to implement the general pretreatment standards. All other POTWs must develop such local limits where they have experienced ''pass through'' or ''interference'' and such a violation is likely to recur. There are approximately 1,500 POTWs with approved pretreatment programs and 13,500 small POTWs that are not required to develop and implement pretreatment programs.

In addition, EPA establishes technology-based national regulations, termed ''categorical pretreatment standards,'' for categories of industry discharging pollutants to POTWs that may pass through, interfere with or otherwise be incompatible with POTW operations. CWA section 307(b). Generally, categorical pretreatment standards are designed such that wastewaters from direct and indirect industrial dischargers are subject to similar levels of treatment. EPA has promulgated such pretreatment standards for 35 industrial categories.

One of the tools traditionally used by EPA in evaluating whether pollutants ''pass through'' a POTW, is a comparison of the percentage of a pollutant removed by POTWs with the percentage of the pollutant removed by discharging facilities applying BAT. Pretreatment standards for existing sources are technology based and are analogous to BAT effluent limitations guidelines. In most cases, EPA has concluded that a pollutant passes through the POTW when the median percentage removed nationwide by representative POTWs (those meeting secondary treatment requirements) is less than the median percentage removed by facilities complying with BAT effluent limitations guidelines for that pollutant. This approach to the definition of ''pass through'' satisfies two competing objectives set by Congress: (1) That standards for indirect dischargers be equivalent to standards for direct dischargers; and (2) that the treatment capability and performance of POTWs be recognized and taken into account in regulating the discharge of pollutants from indirect dischargers.

The term ''interference'' means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and (2) therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with applicable regulations or permits. See 40 CFR 403.3(i). *To determine the potential for ''interference,'' EPA generally evaluates the industrial indirect discharges in terms of:* (1) The compatibility of industrial wastewaters and domestic wastewaters (*e.g.,* type of pollutants discharged in industrial wastewaters compared to pollutants typically found in domestic wastewaters); (2) concentrations of pollutants discharged in industrial wastewaters that might cause interference with the POTW collection system, the POTW treatment system, or biosolids disposal options; and (3) the potential for variable pollutant loadings to cause interference with POTW operations (*e.g.,* batch discharges or slug loadings from industrial facilities interfering with normal POTW operations).

If EPA determines a category of indirect dischargers causes pass through or interference, EPA would then consider the BAT and BPT factors (including ''such other factors as the Administrator deems appropriate'') specified in section 304(b) to determine whether to establish pretreatment standards for these activities. Examples of ''such other factors'' include a consideration of the magnitude of the hazard posed by the pollutants discharged as measured by: (1) The total annual TWPE discharged by the industrial sector; and (2) the average TWPE discharge among facilities that discharge to POTWs. Additionally, EPA would consider whether other regulatory tools (*e.g.,* use of local limits under Part 403) or voluntary measures would better control the pollutant discharges from this category of indirect dischargers. For example, EPA relied on a similar evaluation of ''pass through potential'' in its prior decision not to promulgate national categorical

pretreatment standards for the Industrial Laundries industry. See 64 FR 45071 (August 18, 1999). EPA noted in this 1999 final action that, ''While EPA has broad discretion to promulgate such [national categorical pretreatment] standards, EPA retains discretion not to do so where the total pounds removed do not warrant national regulation and there is not a significant concern with pass through and interference at the POTW.'' See 64 FR 45077 (August 18, 1999).

EPA reviewed TRI 2005 discharge data in order to identify industry categories without categorical pretreatment standards that are discharging pollutants to POTWs that may pass through, interfere with or otherwise be incompatible with POTW operations (*see* DCN 05515). This review did not identify any such industrial categories. EPA also evaluated stakeholder comments and pollutant discharge information in the previous annual reviews to inform this review.

In particular, commenters on the 2004 and 2006 annual reviews raised concerns about discharges of pollutants of emerging concern such as endocrine disruptors from health service facilities and mercury discharges from dentists and urged EPA to consider establishing effluent guidelines and pretreatment standards for such discharges. In response to these comments, EPA investigated the Health Services Industry in its 2005 and 2006 annual reviews and found that it did not have readily available information to make an informed decision on the potential for ''pass through'' or ''interference.'' Consequently, EPA identified this industrial category for detailed study in its preliminary 2006 Plan. EPA also received stakeholder comments on the issues of dental amalgam and unused pharmaceuticals management for the Health Services Industry in response to the 2007 annual review.

As discussed below EPA is not identifying dental facilities for an effluent guidelines rulemaking in this notice. However, EPA is continuing its study of unused pharmaceutical management for the Health Services Industry. EPA also solicits comment and data on all industrial sectors not currently subject to categorical pretreatment standards for its 2009 review. Finally, EPA solicits comment on methods for collecting and aggregating pollutant discharge data collected by pretreatment programs to further inform its future review of industry categories without categorical pretreatment standards.

B. Health Services Industry

EPA identified the Health Services Industry as a candidate for a detailed study in the final 2006 Effluent Guidelines Program Plan (*see* 71 FR 76656; December 21, 2006). The Health Services Industry includes establishments engaged in various aspects of human health (*e.g.,* hospitals, hospices, long-term care facilities, dentists) and animal health (*e.g.,* veterinarians). Health services establishments fall under SIC major group 80 ''Health Services'' and industry group 074 ''Veterinary Services.'' According to the 2002 Census, there are over 475,000 facilities in the Health Services Industry (*see* EPA–HQ–OW–2004–0032–1615). EPA is including the following sectors within the Health Services Industry in its detailed study: Offices and Clinics of Dentists; Doctors and Mental Health Practitioners; Nursing and Personal Care Facilities (long-term care facilities); Hospitals, Hospices and Clinics; Medical Laboratories and Diagnostic Centers; and Veterinary Care Services (*see* August 29, 2005; 70 FR 51054). As discussed below, EPA is focusing on two main issues for these sectors within this industry.

All these sectors require services to be delivered by trained professionals for the purpose of providing health care and social assistance for individuals or animals. These entities may be free standing or part of a hospital or health system and may be privately or publicly owned. The services can include diagnostic, preventative, cosmetic, and curative health services.

The vast majority of establishments in the health services industries are not subject to categorical limitations and standards. In 1976, EPA promulgated 40 CFR 460, which only applies to direct discharging hospitals. Part 460 did not establish pretreatment standards for indirect discharging facilities.

In evaluating the health services industries to date, EPA has found little readily available information from EPA databases. Both PCS and TRI contain sparse information on health care service establishments. For 2002, PCS only has data for two facilities that are considered ''major'' sources of pollutants, and only Federal facilities in the healthcare industry are required to report to TRI.

Based on preliminary information, major pollutants of concern in discharges from health care service establishments include solvents, mercury, pharmaceuticals, and biohazards (*e.g.,* items contaminated with blood) (*see* EPA–HQ–OW–2004–0032–0729). The majority of the mercury originates from the following sources: Amalgam used in dental facilities and medical equipment, laboratory reagents, and cleaning supplies used in healthcare facilities (*see* EPA–HQ–OW 2004 0032 0038 and 2391). EPA found little to no quantitative information on wastewater discharges of pollutants of emerging concern such as pharmaceuticals but was able to identify some information on biohazards (*see* DCN EPA–HQ–OW–2006–0771–0533).

As described above, the Health Services Industry is expansive and contains approximately half a million facilities. Because of the size and diversity of this category and other resource constraints, EPA decided to focus its detailed study on certain types of dischargers. EPA selected its focus areas, for the most part, to respond to stakeholder concerns. The focus areas are:

- *Dental mercury:* EPA focused its evaluation on mercury discharges from the offices and clinics of dentists due to the potential hazard and bioaccumulative properties associated with mercury.
- *Unused pharmaceuticals:* EPA is focusing its evaluation on the management of unused or leftover pharmaceuticals from health service facilities due to the growing concern over the discharge of pharmaceuticals into water and the potential environmental effects.

1. Dental Mercury

The Agency notes that it has an overall interest in mercury reduction and on July 5, 2006, issued a report titled, ''EPA's Roadmap for Mercury,'' (*see* EPA–HQ–OW–2004–0032–1612). Among other things, EPA's report highlights mercury sources and describes progress to date in addressing mercury sources. As part of the 2008 Health Services Industry detailed study, EPA researched the following questions/topics for the 2008 final plan as they relate to disposal of mercury into municipal sewer systems:

- What are current industry practices regarding the mercury disposal? To what extent are each of these practices applied? What factors drive current practices?
- Are there federal, state, or local requirements or guidance for disposal of mercury? What are these requirements?
- How are control authorities currently controlling (or not controlling) disposal of mercury via wastewater?
- To what extent do POTWs report pass through or interference problems related to mercury discharges?

• *What technologies are available:* (1) As alternatives to wastewater disposal; and (2) to control pollutant discharges. Is there any qualitative or quantitative information on their efficiency?

• What Best Management Practices (BMPs) are used as alternatives to wastewater disposal and/or to control discharges and is there any qualitative or quantitative information on their efficiency?

• Is there any quantitative or qualitative information on the costs associated with identified technologies and/or BMPs?

Across the United States, many States and municipal wastewater treatment plants (publicly owned treatment works—POTWs) are working toward the goal of reducing discharges of mercury into collection systems. Many studies have been conducted in an attempt to identify the sources of mercury entering these collection systems. According to the 2002 Mercury Source Control and Pollution Prevention Program Final Report prepared for the National Association of Clean Water Agencies (NACWA), dental clinics are the main source of mercury discharges to POTWs. The American Dental Association (ADA) estimated in 2003 that up to 50% of mercury entering POTWs was contributed by dental offices (*see* DCN 04698).

EPA estimates there are approximately 160,000 dentists working in 120,000 dental offices that use or remove amalgam in the United States—almost all of which discharge their wastewater exclusively to POTWs. Mercury in dental wastewater originates from waste particles associated with the placement and removal of amalgam fillings. Most dental offices currently use some type of basic filtration system to reduce the amount of mercury solids passing into the sewer system. However, best management practices and the installation of amalgam separators, which generally have a removal efficiency of 95%, have been shown to reduce discharges even further. A recent study funded by NACWA (*see* DCN 04225) concluded that the use of amalgam separators results in reductions in POTW influent concentrations and biosolids mercury concentrations. Use of amalgam separators does not always result in reductions in POTW effluent, however, since most amalgam particles are removed with biosolids. Mercury that partitions to wastewater sludge may be incinerated or disposed to a landfill.

States, Regions, and localities have implemented mandatory and voluntary programs to reduce dental mercury discharges. Specifically, 11 states and at least 19 localities have mandatory pretreatment programs that require the use of dental mercury amalgam separators (*see* DCN 05518). Additionally, at least 20 POTWs have voluntary programs to reduce mercury discharges from dental offices. Success rates for these voluntary programs vary greatly, and are usually higher when there is a mandatory ''second phase'' to the voluntary program. EPA Region 5 published guidance for permitting dental mercury discharges (*see* EPA–HQ–OW–2006–0771–0460). The ADA has also adopted and published best management practices for its members. On October 2, 2007, the ADA updated its best management practices to include the use of amalgam separators (*see* EPA–HQ–OW–2006–0771–0211). The document titled ''Health Services Industry Detailed Study: Dental Amalgam,'' compiles the information EPA has collected to date on existing guidance and requirements for dental mercury (*see* DCN 05518).

In 2007 and 2008, EPA focused its efforts on collecting and compiling information on current mercury discharges from dental offices, best management practices (BMPs), and amalgam separators. For amalgam separators, EPA looked at the frequency with which they are currently used; their effectiveness in reducing discharges to POTWs; and the capital and annual costs associated with their installation and operation (*see* DCN 05518). EPA also conducted a POTW pass-through analysis on mercury for the industry.

EPA received comments from 32 stakeholders on the preliminary 2008 Plan. Most commenters were from pretreatment programs that provided useful information on their mandatory and voluntary pretreatment programs that include the use of amalgam separators. EPA used this information to update its final report on management and best practices for the control of dental mercury (*see* DCN 05518). ADA and NACWA commented that although they do not support development of national pretreatment standards, they are willing to work with one another and EPA to increase the use of amalgam separators by dental facilities. EPA is exploring options with ADA and NACWA to promote the use of amalgam separators.

In response to mercury water quality and pollution prevention concerns, there is progress at the State and local level as amalgam separators and other BMPs are increasingly being mandated by States and local governments. ADA's recently revised BMPs will likely help in convincing dentists to install amalgam separators and employ other BMPs to recover dental amalgam and prevent the discharge of mercury to POTWs. This will help POTWs reduce the amount of mercury in their biosolids and the potential for mercury emissions when biosolids are incinerated. Additionally, due to mercury-free fillings and improved overall dental health, the use of mercury in dentistry is decreasing in the U.S. (*see* DCN 05518).

At this time EPA is not identifying this sector for an effluent guidelines rulemaking. As previously noted above, industrial categories demonstrating significant progress through voluntary efforts to reduce hazard to human health or the environment associated with their effluent discharges are a lower priority for effluent guidelines or pretreatment standards revision, particularly where such reductions are achieved by a significant majority of individual facilities in the industry. As an example, in the final 2006 Plan EPA relied on a national voluntary partnership program for the industrial laundries sector as a factor in not identifying the industrial laundries sector for an effluent guidelines rulemaking (*see* EPA–HQ–OW–2004–0032–2782, Section 19.9). In future annual reviews, EPA will continue to examine the percentage of dentists using amalgam separators and their effectiveness at recovering dental amalgam and reducing mercury discharges to POTWs. EPA notes ADA's recent positive step in revising their BMPs to include the recommendation for dentists to use amalgam separators. In particular, EPA will examine whether a significant majority of dentists are utilizing amalgam separators. After such examination, EPA may re-evaluate its current view not to initiate an effluent guidelines rulemaking for this sector.

2. Unused Pharmaceuticals

To date, scientists have identified more than 160 pharmaceutical compounds at discernable concentrations in our nation's rivers, lakes, and streams (*see* Section 3 of DCN 05519). To address this issue at the source, EPA is studying how the drugs are entering our waterways and what factors contribute to the current situation. Towards this end, EPA initiated a study on pharmaceutical disposal practices at health care facilities, such as hospitals, hospices, long-term care facilities, and veterinary hospitals. Unused pharmaceuticals include dispensed prescriptions that patients do not use as well as materials that are beyond their expiration dates. Another potential source of unused pharmaceuticals is the residuals

remaining in used and partially used dispensers, containers, and devices. Many of these dispensers, containers, and devices are bulky and are likely not disposed to the sewer as they could create blockages in the sewer; however, some might be sewered (e.g., medical patches). As a point of clarification, the term ''unused pharmaceuticals'' does not include excreted pharmaceuticals.

For many years, a standard practice at many health care facilities was to dispose of unused pharmaceuticals by flushing them down the toilet or drain. Through this study, EPA seeks to investigate the following questions:

- What are the current industry practices for disposing of unused pharmaceuticals?
- Which pharmaceuticals are being disposed of and at what quantities?
- What are the options for disposing of unused pharmaceuticals other than down the drain or toilet?
- What factors influence disposal decisions?
- Do disposal practices differ within industry sectors?
- What Best Management Practices (BMPs) could facilities implement to reduce the generation of unused pharmaceuticals?
- What reductions in the quantities of pharmaceuticals discharged to POTWs would be achieved by implementing BMPs or alternative disposal methods?
- What are the costs of current disposal practices compared to the costs of implementing BMPs or alternative disposal methods?

In a related effort, EPA also seeks to determine the effectiveness with which publicly-owned treatment works (POTWs) can remove pharmaceuticals from incoming sewage. Upon completion of the health services study, EPA hopes to understand what factors contribute to unused pharmaceutical disposal methods at health service facilities and which disposal methods represent best practices to minimize environmental impacts.

To date, EPA has completed an interim study of the health services industry (*see* DCN 05519). To gather data for the study, EPA completed site visits to two hospitals and a pharmaceutical reverse distributor; investigated secondary data sources such as existing institutional surveys on disposal practices; and conducted a series of meetings and teleconferences with other Federal agencies and health care stakeholder groups.

The study focused on hospitals and long-term care facilities (LTCFs) because these facilities are likely responsible for the largest amounts of unused pharmaceuticals being disposed into sewage collection systems within this industry sector. In 2005, there were about 7,000 hospitals and 35,000 LTCFs in the United States (*see* DCN 05519).

EPA's four preliminary findings include:

(1) Federal, state, and local laws and regulations often require special handling of pharmaceutical waste. These laws and regulations can influence the options hospitals and long-term care facilities have for disposing of unused pharmaceuticals.

- Some federal regulations may inadvertently encourage disposal of unused pharmaceuticals via the sewer. The Controlled Substances Act (CSA), enforced by the Drug Enforcement Administration (DEA), establishes a closed distribution system for controlled substances. The CSA prohibits the return of controlled substances from end-users to any person except, in certain cases, a law-enforcement agent and CSA registrants. Disposal of controlled substances by CSA registrants is carefully regulated to ensure that the substance is destroyed or rendered unrecoverable. One acceptable method of destruction is witnessed disposal of controlled substances in a drain or toilet.
- Some unused pharmaceuticals are regulated as hazardous wastes and subject to the nation's hazardous waste disposal requirements. Pharmaceutical wastes may be hazardous waste (under the Resource Conservation and Recovery Act (RCRA)) if they are: (1) the pharmaceutical or its sole active ingredient is specifically listed in 40 CFR part 261.33(e) or (f) (commonly referred to as the P or U lists, respectively); and/or (2) the waste exhibits one or more characteristics of hazardous waste (ignitability, corrosivity, reactivity, or toxicity as defined in 40 CFR parts 261.21–24, respectively). Common pharmaceutical wastes that are RCRA hazardous waste when disposed of include epinephrine, nitroglycerin, warfarin, nicotine, and some chemotherapeutic agents.[4] Healthcare facilities must determine if these wastes are RCRA hazardous wastes, and if so, must comply with all applicable RCRA Subtitle C requirements, including many special handling and transportation requirements.
- State regulations vary widely and influence disposal practices. State regulations of the disposal of unused pharmaceuticals and controlled substances vary widely (*see* DCNs 04952 and 04953). Many state regulations require both hospitals and LTCFs to destroy unused pharmaceuticals but often do not specify the process of destruction; however, many states (33 states according to DCN 04953) have requirements for the types of facility personnel required to conduct and oversee the destruction. Some states have hazardous waste regulations that are more stringent than EPA (*see* DCN 04944). For example, some wastes are regulated as hazardous under state law but not RCRA (*see* Table 4–1 of DCN 05519). State regulations for reuse of medications vary widely. Many states allow re-use of uncontaminated pharmaceuticals (excluding controlled substances) that have been in a controlled environment, such as an automatic dispensing system (*see* DCN 04952). At least five states strictly prohibit hospitals and LTCFs from reusing pharmaceuticals entirely. These states include Arizona, Kentucky, Mississippi, New Mexico, and Texas. California allows county health departments to collect unused pharmaceuticals from LTCFs, wholesalers, and manufacturers and redistribute them for dispensing to the uninsured poor. Some State Medicare and Medicaid requirements often deter LTCFs from donating or redistributing their unused medications (*see* DCN 05961).
- Medicare and Medicaid requirements also influence hospital disposal practices. The Centers for Medicare and Medicaid Services (CMS), the federal agency within the Department of Health and Human Services, administers the Medicare and Medicaid programs. Medicare provides health insurance to elderly and disabled Americans, while Medicaid provides health insurance for low income Americans, including long-term care coverage (*see* DCN 05074). In a March 22, 2006 letter, CMS provided guidance to State Medicaid programs encouraging states to require LTCFs to return unused medications to pharmacies and to ensure Medicaid is repaid for unused treatments when nursing home patients die, are discharged, or have their prescriptions changed. In addition, some state Medicaid programs require LTC pharmacies to accept returned unused pharmaceuticals (excluding controlled substances) from LTCFs. The LTC pharmacy then credits Medicaid for

[4] The Agency clarified its regulation at 40 CFR 261.33, explaining that epinephrine salts are not included in the epinephrine P042 listing (since the listing only specifies epinephrine and not epinephrine salts); the salts, therefore, would be hazardous only if the waste epinephrine salt exhibited one or more of the hazardous waste characteristics (*see* ''Scope of Hazardous Waste Listing P042 (Epinephrine),'' October 15, 2007, RCRA Online# 14778)''

the unused doses. However, LTC pharmacies typically receive little payment for these return services and have not found them to be cost effective. For example, when a pharmacy takes back a previously dispensed medication for disposal, it must pay to have the medication destroyed, but it is not compensated for this service (*see* DCN 04952). Therefore, few LTC pharmacies participate in these programs.

(2) Organization size, ease and access of disposal, and cost are also factors influencing the disposal of unused pharmaceuticals.

Some facilities use flushing to sewers as a primary means of disposal since it is both easy and complies with CSA requirements for destruction. Facilities are most likely to flush pharmaceuticals if they do not have an on-site pharmacy and/or do not have a pre-existing contract with a hazardous waste hauler to dispose of the pharmaceuticals. In the past, public health agencies and health-related non-government organizations guided the public to destroy unused medications by flushing them down the toilet. Many LTCFs have adopted this method for destruction of unused controlled substances. Many LTCFs have also extended this practice to include flushing all unused medications—controlled and non controlled substances (*see* EPA-HQ-OW–2006–0771–0851).

(3) Fewer disposal opportunities exist for long-term care facilities because they are often not CSA registrants and cannot generally return pharmaceuticals to the manufacturer or use reverse distributors.

Hospitals typically have on-site pharmacies. It is common practice at hospitals to return some unused pharmaceuticals to the hospital pharmacy and then on to the manufacturer for credit or disposal. However, this option extends only to those pharmaceuticals for which the hospital can receive credit and does not include unused pharmaceuticals that are considered waste (*e.g.*, pharmaceuticals in an intravenous bag, drug samples brought into the hospital). Also, hospitals typically do not prescribe medication far in advance or in large quantities. As a result, the potential for pharmaceuticals to be wasted is reduced. In addition, hospitals typically have pre-existing arrangements for disposal of unused pharmaceuticals as hazardous waste (*see* EPA-HQ-OW–2006–0771–0851).

(4) Best management practices, if widely implemented, have the potential to reduce the amount of unused pharmaceuticals entering our nation's waters from disposal.

Three organizations provide guidance in the form of Best Management Practices (BMPs) to medical facilities on managing pharmaceutical waste: Hospitals for a Healthy Environment (H2E), Product Stewardship Institute (PSI), and Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The guidelines provided by these organizations all aim to reduce health and environmental impacts due to current disposal practices of pharmaceutical waste, as discussed in Section 5.2 of the Interim Technical Report (*see* DCN 05519). Examples of model BMPs identified to date include waste minimization and reverse distribution systems used by hospitals in California, Minnesota, and Washington. Waste minimization techniques include maintaining inventories of high-use pharmaceuticals and identifying those that are close to expiring. Short-dated pharmaceuticals are redistributed to other areas of the hospitals where they are needed. Also, dispensed pharmaceuticals can go unused at a hospital or LTCF if the patient has an allergic or adverse reaction to the medication, no longer requires treatment, refuses treatment, or the medication expires. Hospitals and LTCFs can reduce the amount of pharmaceutical waste generated by limiting the amount of pharmaceuticals dispensed to patients and residents at one time. This can be accomplished by using unit dose packaging, limited quantity dispensing, automatic dispensing systems, and standardized medication dosages, as discussed in Section 5.2 of the Interim Technical Report (*see* DCN 05519). Hospitals and LTCFs have the option of hiring reverse distributors to manage their unused and/or expired medication that the facility believes could be returned to the manufacturer or wholesaler for credit. The reverse distributor determines which medications may be returned to the manufacturer or wholesaler for credit and arranges for disposal of unused medications that are waste. However, there are CSA limitations for reverse distributors and controlled substances. In most cases, reverse distributors cannot handle controlled substances.

EPA is concerned about pharmaceuticals in the environment and is working on this issue in many different areas. Over the last few years, EPA has increased its work in a number of areas to better understand pharmaceuticals. EPA has an overall strategy to address the risks associated with emerging contaminants. This four-pronged strategy is aimed at improving science, improving public understanding, identifying partnership and stewardship opportunities, and taking regulatory action as appropriate. We are focused on learning more about the occurrence and health effects of pharmaceuticals in water. In addition, we are working to better understand what treatment technologies may remove them from wastewater and drinking water. We are developing analytical methods to improve detection capabilities. We are conducting national studies and surveys to help direct our course of action. We are also partnering with government agencies, stakeholders, and the private sector, and increasing public awareness about product stewardship and pollution prevention (*see* DCN 06111). Additionally, the Agency is considering amending its hazardous waste regulations to add hazardous pharmaceutical wastes to the universal waste system to facilitate its oversight of the disposal of pharmaceutical waste (40 CFR 273) (*see* RIN 2050–AG39, April 30, 2007; 72 FR 23170). In addition, the inclusion of hazardous pharmaceutical wastes in the universal waste rule may encourage health care facilities to manage all their pharmaceutical wastes as universal wastes, even wastes that are not regulated as hazardous but which nonetheless pose hazards. Finally, EPA has identified the issue of pharmaceuticals in wastewater is part of the Agency's Strategic Plan (2006–2011) to meet its goals of clean and safe water.[5]

EPA continues to study the issue of how health care facilities are managing and disposing of unused pharmaceuticals and POTW treatment effectiveness in an effort to identify the root cause and potential solutions to address the issue of pharmaceuticals in our waterways. Over the coming year, EPA will need to gather more technical and economic information on unused pharmaceutical management in the Health Services Industry. To aid its decision-making, EPA intends to submit an Information Collection Request (ICR) to the Office of Management and Budget (OMB) for their review and approval under the Paperwork Reduction Act (PRA), 33 U.S.C. 3501, et seq., during the 2009 annual review. EPA will use this ICR to collect technical and economic information on unused pharmaceutical management and identify technologies and BMPs that reduce or eliminate the discharge of unused pharmaceuticals to POTWs. In designing this industry survey EPA

[5] See ''2006–2011 EPA Strategic Plan,'' *http://www.epa.gov/ocfo/plan/plan.htm.*

expects to work closely with industry representatives from hospitals, hospices, long-term care facilities, veterinary hospitals and other affected stakeholders. EPA has published a separate **Federal Register** notice for this ICR and solicits comment on the potential scope of this ICR (*see* August 12, 2008; 73 FR 46903).

EPA also plans to conduct additional site visits to facilities to obtain more detailed information on how pharmaceuticals are managed, tracked, and disposed as well as influences on behavior. In addition, EPA is considering collecting data from other types of health care facilities (e.g., medical and dental offices, university and prison health clinics, and veterinary clinics). EPA is also reviewing studies on POTW effectiveness. EPA remains concerned about this issue and plans to expedite completion of this study.

VIII. The Final 2008 Effluent Guidelines Program Plan Under Section 304(m)

In accordance with CWA section 304(m)(2), EPA published the preliminary 2008 Plan for public comment prior to this publication of the final 2008 Plan. See October 30, 2007 (72 FR 61335). The Agency received 32 comments from a variety of commenters including industry and industry trade associations, municipalities and sewerage agencies, environmental groups, and State government agencies. Many of these public comments are discussed in this notice. The Docket accompanying this notice includes a complete set of all of the comments submitted, as well as the Agency's responses (*see* DCN 06109). EPA carefully considered all public comments and information submitted to EPA in developing the final 2008 Plan.

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

1. Schedule for 2007 and 2008 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. This final 2008 Plan announces EPA's schedule for performing its section 304(b) reviews. The schedule is as follows: EPA will coordinate its annual review of existing effluent guidelines under section 304(b) with its publication of the preliminary and final Plans under CWA section 304(m). In other words, in odd-numbered years, EPA intends to complete its annual review upon publication of the preliminary 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 2008 annual review is the review cycle ending upon the publication of this final 2008 Plan.

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 Plans, e.g., by identifying candidates for effluent guidelines revision for which EPA can schedule rulemaking in the Plan, or 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 2008 annual review along with the final 2008 Plan, EPA hopes to gather and receive data and information that will inform its reviews for 2009 and 2010 and the final 2010 Plan.

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

EPA is currently conducting rulemakings to potentially revise existing effluent guidelines and pretreatment standards for three categories. For the Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) and Inorganic Chemicals categories, the effluent guidelines rulemaking is focused on discharges from Vinyl Chloride and Chlor-Alkali facilities. EPA first identified this effluent guidelines rulemaking in the final 2004 Plan and refers to it as the ''Chlorine and Chlorinated Hydrocarbon (CCH) manufacturing'' rulemaking. EPA emphasizes that identification of the rulemaking schedules for these effluent guidelines does not constitute a final decision to revise the guidelines. EPA may conclude at the end of the formal rulemaking process—supported by an administrative record and following an opportunity for public comment—that effluent guidelines revisions are not appropriate for these categories. EPA is not scheduling any other existing effluent guidelines for rulemaking at this time.

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

The final Plan must also identify categories of sources discharging 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 final Plan must also establish a schedule for the promulgation of effluent guidelines for the categories identified under section 304(m)(1)(B), providing for final action on such rulemaking not later than three years after the identification of the category in a final Plan.[6] See CWA section 304(m)(1)(C).

EPA is currently conducting effluent guidelines rulemakings for two potential new categories (*see* September 2, 2004; 69 FR 53705). One of these categories—Airport Deicing Operations—was identified as a potential new category in the final 2004 Plan. EPA plans to propose these effluent guidelines for Airport Deicing Operations later this calendar year. EPA initiated new rulemaking for the other category—Construction and Development—because it was directed to do so by a district court order. *Natural Resources Defense Council et al.* v. *U.S. Environmental Protection Agency,* No. 04–8307, order (C.D. Ca. December 6, 2006). EPA disagrees with the district court's decision and an appeal is currently pending before the Ninth Circuit; however, in order to comply with the district court's order EPA is conducting the rulemaking ordered by the court. The district court order requires EPA to propose a rule by December 1, 2008 and finalize it by December 1, 2009. EPA expects to meet this court order with the publication of

[6] EPA recognizes that one court—the U.S. District Court for the Central District of California—has found that EPA has a duty to *promulgate* effluent guidelines within three years for new categories identified in the Plan. *See NRDC et al.* v. *EPA,* 437 F.Supp.2d 1137 (C.D. Ca. 2006). However, an appeal is currently pending before the Ninth Circuit and EPA continues to believe that the mandatory duty under section 304(m)(1)(c) is limited to mandating a *schedule* for concluding the effluent guidelines rulemaking—not for promulgating new effluent guidelines—within three years.

the proposed rule for Construction and Development no later than December 1, 2008 and publication of the final rule one year later.

For the reasons discussed below, EPA is not identifying any potential new category for effluent guidelines rulemaking. Therefore, EPA is not scheduling effluent guidelines rulemaking for any category is this final Plan. In the 2004 Plan, EPA announced that it would begin development of a regulation to control the pollutants discharged from drinking water treatment plants. See 69 FR 53720 (September 2, 2004). Based on preliminary study and on public comments, EPA was interested in the potential volume of discharges associated with drinking water facilities. The preliminary data were not conclusive, and the Agency proceeded with additional study and analysis of treatability, including an industry survey. The additional analysis included extensive information about the industry, its treatment residuals, wastewater treatment options, and discharge characteristics. EPA is evaluating a range of effluent guidelines priorities, including court-mandated actions, and plans to make a decision shortly on whether to continue work on this rulemaking.

In order to identify industries not currently subject to effluent guidelines, EPA primarily used data from TRI and PCS. Facilities with data in TRI and PCS are identified by a four-digit SIC code (*see* DCN 05515). EPA performed a crosswalk between the TRI and PCS data, identified with the four-digit SIC code, and the 56 point source categories with effluent guidelines or pretreatment standards to determine if a four-digit SIC code is currently regulated by existing effluent guidelines (*see* DCN 05515). EPA also relied on comments received on its previous 304(m) plans to identify potential new categories. EPA then assessed whether these industrial sectors not currently regulated by effluent guidelines meet the criteria specified in section 304(m)(1)(B), as discussed below (*see* DCN 06112). EPA notes that the Ninth Circuit has recently held that the precise number and kind of categories identified by EPA in its 304(m) planning process is discretionary with the Administrator. *Our Children's Earth* v. *EPA,* 527F.3d 842, 852 (9th Cir. 2008).

The first criterion for identifying industries under section 304(m)(1)(B) is whether they are ''categories of sources'' for which EPA has not promulgated effluent guidelines. Because this section does not define the term ''categories,'' EPA interprets this term based on the use of the term in other sections of the Clean Water Act, legislative history, and Supreme Court case law, and in light of longstanding Agency practice. These sources indicate that the term ''categories'' refers to an industry as a whole based on similarity of product produced or service provided, and is not meant to refer to specific industrial activities or processes involved in generating the product or service. EPA therefore identifies in its biennial Plan only those new industries that it determines are properly considered stand-alone ''categories'' within the meaning of the Act—not those that are properly considered potential new subcategories of existing categories based on similarity of product or service.

EPA's interpretation of the term ''categories'' is consistent with longstanding Agency practice. Pursuant to CWA section 304(b), which requires EPA to establish effluent guidelines for ''classes and categories of point sources,'' EPA has promulgated effluent guidelines for 56 industrial ''categories.'' Each of these ''categories'' consists of a broad array of facilities that produce a similar product or perform a similar service—and is broken down into smaller subsets, termed ''subcategories,'' that reflect variations in the processes, treatment technologies, costs and other factors associated with the production of that product that EPA is required to consider in establishing effluent guidelines under section 304(b). For example, the ''Pulp, Paper and Paperboard point source category'' (40 CFR part 430) encompasses a diverse range of industrial facilities involved in the manufacture of a like product (paper); the facilities range from mills that produce the raw material (pulp) to facilities that manufacture end-products such as newsprint or tissue paper. EPA's classification of this ''industry by major production processes used many of the statutory factors set forth in CWA Section 304(b), including manufacturing processes and equipment (*e.g.*, chemical, mechanical, and secondary fiber pulping; pulp bleaching; paper making); raw materials (*e.g.*, wood, secondary fiber, non-wood fiber, purchased pulp); products manufactured (*e.g.*, unbleached pulp, bleached pulp, finished paper products); and, to a large extent, untreated and treated wastewater characteristics (*e.g.*, BOD loadings, presence of toxic chlorinated compounds from pulp bleaching) and process water usage and discharge rates.'' [7] Each subcategory reflects differences in the pollutant discharges and treatment technologies associated with each process. Similarly, the ''Iron and Steel Manufacturing point source category'' (40 CFR part 420) consists of various subcategories that reflect the diverse range of processes involved in the manufacture of iron and steel, ranging from facilities that make the basic fuel used in the smelting of iron ore (subpart A—Cokemaking) to those that cast the molten steel into molds to form steel products (subpart F—Continuous Casting). An example of an industry category based on similarity of service provided is the Transportation Equipment Cleaning Point Source Category (40 CFR Part 442), which is subcategorized based on the type of tank (*e.g.*, rail cars, trucks, barges) or cargo transported by the tanks cleaned by these facilities, reflecting variations in wastewaters and treatment technologies associated with each.

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 in the biennial Plan any industrial categories comprised exclusively or almost exclusively of indirect discharging facilities regulated under section 307.

Third, CWA section 304(m)(1)(B) applies only to industrial categories of sources that discharge toxic or non-conventional pollutants to waters of the United States. EPA therefore did not identify in the Plan industrial activities for which conventional pollutants, rather than toxic or non-conventional pollutants, are the pollutants of concern. In addition, even when toxic and non-conventional pollutants might be present in an industrial category's discharge, section 304(m)(1)(B) does not apply when those discharges occur in trivial amounts. 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 discharge of toxic or non-conventional pollutants.

Finally, EPA interprets section 304(m)(1)(B) to give EPA the discretion to identify in the Plan only those

[7] U.S. EPA, 1997. *Supplemental Technical Development Document for Effluent Limitations Guidelines and Standards for the Pulp, Paper, and Paperboard Category,* Page 5–3, EPA–821–R–97–011, October 1997.

potential new categories for which an effluent guidelines rulemaking may be an appropriate tool for controlling discharges. Therefore, EPA does not identify in the Plan all potential new categories discharging toxic and non-conventional pollutants. Rather, EPA identifies only those potential new categories for which it believes that effluent guidelines may be appropriate, taking into account Agency priorities, resources and the full range of other CWA tools available for addressing industrial discharges.

IX. Request for Comment and Information

A. EPA Requests Information on the Steam Electric Power Generating Category (Part 423)

EPA solicits public comments on the following areas of interest to support the Steam Electric Power Generating Detailed Study.

• *Treatment technologies for wastewaters from wet FGD systems.* EPA solicits information and data regarding the costs and performance of treatment technologies for wastewater from wet FGD systems. Treatment technologies of interest include, but are not limited to, chemical precipitation, biological systems, evaporation/brine concentration zero liquid discharge, underground injection, and complete recycle. Both capital and annual operations and maintenance costs are requested, as well as information on key variables that determine these costs for any particular facility and how they would vary as a function of plant electric generating capacity, wastewater flow rate, pollutant characteristics, or other factors. To help evaluate efficacy of the treatment technologies, EPA seeks both influent and effluent data from full scale or pilot applications. *Data submitted should include details on:* (1) Date for the sample collection and analysis; (2) identification of laboratory analytical methods; and (3) detailed descriptions of the wastewater treatment system and sample collection points. The description of the treatment system should also include design and operational information such as flow rate (design maximum and average flow rates for the influent scrubber purge and treatment system effluent; typical operating flow rate for the influent purge and effluent; and actual flow rate corresponding to sampling data submitted), residence time, chemical additives, and the flow rates for recirculation flows within the treatment system.

• *Effect of SCR/SNCR on FGD wastewater characteristics.* EPA solicits data quantifying how the operation of selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR) NO_X emission reduction technologies affects FGD wastewater characteristics. In particular, EPA solicits concentration and mass data for metals, ammonia, and other nitrogen compounds. In addition to data for other metals, EPA solicits information to assess the degree to which SCR or SNCR operation may increase levels of hexavalent chromium in the FGD wastewater.

• *Effects of scrubber additives on FGD wastewater characteristics and treatability.* EPA solicits information on the effect scrubber additives (*e.g.*, dibasic acid (DBA) or formic acid) have on the characteristics of FGD wastewater, and how these additives may positively or negatively affect the treatability of the wastewater. EPA also solicits information on the reasons operators use these additives and why one additive may be considered preferentially over the other (for instance, why an operator would choose to use DBA instead of formic acid, or vice versa).

• *Ash pond management.* EPA solicits information that would help identify best management practices for ash ponds. For example, EPA is aware of information suggesting that managing pyritic wastes in ash ponds should be avoided because it can contribute to lowering pH of the ash pond impoundment, potentially liberating metals in ash sediments and elevating the level of metals released to surface waters. In addition, introducing certain other wastes such as coal pile runoff can substantially affect ash pond pH, similarly producing conditions that favor releasing metals present in ash pond sediments and suspended particulates. EPA solicits information on best management practices for minimizing the potential for such wastes to adversely impact ash pond operation and discharges.

EPA solicits data on pollutant removal performance of ash ponds. Such data should include influent and effluent concentration, mass and flow data. EPA solicits such data for total and dissolved metals, nitrogen compounds (ammonia, total Kjeldahl nitrogen, nitrates, nitrites, and total nitrogen), total dissolved solids, and effluent toxicity.

EPA also solicits information on seasonal effects on ash pond discharges, such as those resulting from seasonal turnover. EPA is particularly interested in the magnitude of the seasonal effects on the concentration and mass of pollutants discharged.

Finally, EPA solicits information that quantify how ash pond discharges have been affected by introducing FGD wastewater into ash ponds that previously did not receive this wastewater.

• *Environmental assessments/ impacts.* EPA solicits information on environmental assessments that have been conducted for discharges from steam electric power plants. In particular, EPA seeks information linking the environmental assessments to discharges of metals (*e.g.*, mercury, arsenic, selenium, boron, and magnesium), ammonia and other nitrogen compounds, phosphorus, total dissolved solids, or biocide residuals (*e.g.*, chlorinated or brominated compounds, or non-oxidizing chemical biocides). EPA also solicits information on the toxicity of discharges from power plants, particularly for FGD and ash pond wastewater. EPA also seeks more general information regarding the potential environmental hazard associated with discharges of these pollutants from steam electric power plants.

• *Integrated gasification combined cycle (IGCC) facilities.* EPA solicits comment on the wastewaters that may be generated or otherwise affected by the coal gasification process. What are the sources and characteristics of wastewaters generated by coal gasification and related processes at IGCC plants? How do these wastewaters compare to those of traditional coal-fired steam electric processes? What treatment technologies are being used to treat IGCC wastewaters, and what are the pollutant removal efficiencies of these systems?

• *Carbon dioxide* (CO_2) capture processes. EPA solicits information describing and characterizing wastewaters that may be generated at power plants when implementing processes to capture and dispose of CO_2 emissions.

B. EPA Requests Information on the Coalbed Methane Extraction Sector of the Oil and Gas Extraction Category (Part 435)

EPA is researching the following questions and topics as they relate to the quantity and toxicity of pollutants discharged and the environmental impacts of these discharges to support the Oil and Gas Extraction/Coalbed Methane detailed study.

• What is the range of pollutant concentrations in CBM produced water?

• What is the toxicity of these pollutants to human health and the environment?

• What is the range of pollutant concentrations and what are the CBM produced water flow rates for the major CBM basins?

• What CBM produced water pollutants are typically controlled through permit limits and what is the range of these permit limits?

• What are the observed and potential impacts of CBM produced water discharges on aquatic environments and communities, riparian zones, and other wetlands?

• How does the composition of CBM produced water change when discharged to normally dry draws or ephemeral streams?

• To what extent do CBM produced water discharges mobilize metals, soil nutrients, pesticides and other organic contaminants present in soil and carry these constituents to surface waters?

• What are measures that can mitigate potential impacts to uses of surface waters that are used for irrigation?

EPA is researching the following questions and topics as they relate to the potential technology options and beneficial use practices for this industrial sector.

• What are the current industry treatment technologies for CBM produced water?

• What are the potential beneficial use applications of CBM produced water and what are the corresponding criteria for such uses?

• How effectively do these treatment technologies and beneficial use practices reduce the potential impacts of CBM produced water discharges?

• What is the range of incremental annualized compliance costs associated with these technologies and practices? How do these costs differ between existing and new sources?

• What is the demonstrated use and economic affordability (*e.g.*, production losses, firm failures, employment impacts resulting from production losses and firm failures, impacts on small businesses) of these technologies across the different CBM basins?

• What are the types of non-water quality environmental impacts (including energy impacts) associated with the current industry treatment technologies and beneficial use practices for CBM produced water?

EPA is researching the following questions and topics as they relate to the expansion of CBM exploration and development and the affordability of potential technology options for this industrial sector.

• What is the near-term and long-term growth rate for this industry sector? Which CBM basins are likely to experience the most growth within the next ten years?

• What are the current industry drilling and infrastructure expansion plans for CBM exploration and development?

• What is the predicted range of CBM reserves across the different basins that would be economically recoverable at different natural gas prices?

• What are the potential impacts on developing CBM reserves and operator profitability and rates of return on investment of any increased costs associated with potential industry treatment technologies and beneficial use practices for CBM produced water discharges?

• What is the difference between potential impacts on existing sources versus new sources?

• What percentage of CBM operators are considered small entities?

EPA is researching the following questions and topics as they relate to current regulatory controls.

• How do NPDES permit programs regulate CBM produced water discharges (*e.g.*, individual permits, general permits)?

• What is the BPJ basis for existing technology-based effluent limits for CBM produced water discharges?

• To what extent and how do current regulatory controls ensure the beneficial use of CBM produced water?

• What other statutes might affect the ability to discharge, treat, or beneficially use CBM produced water (*e.g.*, SDWA, RCRA)?

C. EPA Requests Comments and Information on the Following as it Relates to Unused Pharmaceutical Management for the Health Services Industry

• EPA solicits identification of any policies, procedures or guidelines that govern the disposal of unused pharmaceuticals from hospitals and hospices; offices of doctors and mental health practitioners; nursing, long-term care, re-habilitation, and personal care facilities; medical laboratories and diagnostic service facilities; and veterinary care facilities.

• EPA solicits information on the most likely sub-sectors within the Health Service sector that would accumulate unused pharmaceuticals for management and disposal.

• When applicable, to what extent are unused pharmaceuticals disposed according to the Resource Conservation and Recovery Act (RCRA)?

• *EPA solicits comment and data on:* (1) The main factors that drive current disposal practices; and (2) any barriers preventing the reduction or elimination of unused pharmaceuticals to POTWs and/or surface waters. In particular, EPA solicits comment on the extent to which that the Controlled Substances Act (21 U.S.C. 801 *et seq.*) complicates the design of an efficacious solution to drug disposal.

• EPA solicits quantitative information or tracking sheets for the past year on the disposal of unused pharmaceuticals via the toilet, drain, or sewer.

• EPA solicits data on how control authorities are currently controlling disposal of unused pharmaceuticals via wastewater.

• EPA solicits information on any technologies or BMPs that are available to control, reduce, or eliminate the disposal of unused pharmaceuticals to POTWs.

• EPA solicits qualitative and quantitative data on the effectiveness and annualized costs of the technologies or BMPs that health service facilities use to control or eliminate the discharge of unused pharmaceuticals from their wastewater. EPA is also interested in obtaining information on the current costs (including labor) associated with disposal of unused pharmaceuticals via the drain or toilet.

• EPA solicits any studies or information on the potential for unused pharmaceuticals that are disposed of in non-hazardous-waste landfills to contaminate underground resources of drinking water.

EPA will need to gather more technical and economic information on unused pharmaceutical management in the Health Services Industry. To aid its decision-making, EPA intends to submit an Information Collection Request (ICR) to the Office of Management and Budget (OMB) for their review and approval under the Paperwork Reduction Act (PRA), 33 U.S.C. 3501, *et seq.*, in the 2009 annual review. EPA will use this ICR to collect technical and economic information on unused pharmaceutical management and identify technologies and BMPs that reduce or eliminate the discharge of unused pharmaceuticals to POTWs. In designing this industry survey EPA expects to work closely with industry representatives and other affected stakeholders. EPA has published a separate **Federal Register** notice for this ICR and solicits comment on the potential scope of this ICR (*see* August 12, 2008; 73 FR 46903).

D. Preliminary Category Reviews for the 2008 Annual Review

EPA requests information on the Ore Mining and Dressing category for which it is continuing a preliminary category review (*i.e.*, industrial point source

categories with existing effluent guidelines identified with ''(5)'' in the column entitled ''Findings'' in Table V–1 in section V.B.4 of today's notice). EPA will need to collect more information for the 2009 annual review. Specifically, EPA hopes to gather the following information:

- What toxic pollutants are discharged from this industry in non-trivial amounts on an industry and per-facility basis?
- What raw material(s) or process(es) are the sources of these pollutants?
- What technologies or management practices are available (technically and economically) to control or prevent the generation and/or release of these pollutants.

E. Data Sources and Methodologies

EPA solicits comments on whether EPA used the correct evaluation factors, criteria, and data sources in conducting its annual review and developing this final Plan. EPA also solicits comment on other data sources EPA can use in its annual reviews and biennial planning process. Please see the docket for a more detailed discussion of EPA's analysis supporting the reviews in this notice (*see* DCN 05515).

F. BPJ Permit-Based Support

EPA solicits comments on whether, and if so, how the Agency should provide EPA Regions and States with permit-based support instead of revising effluent guidelines (*e.g.*, when the vast majority of the hazard is associated with one or a few facilities). EPA solicits comment on categories for which the Agency should provide permit-based support.

G. Implementation Issues Related to Existing Effluent Guidelines and Pretreatment Standards

As a factor in its decision-making, 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. Consequently, EPA solicits comment on implementation issues related to existing effluent guidelines and pretreatment standards.

H. EPA's Evaluation of Categories of Indirect Dischargers Without Categorical Pretreatment Standards To Identify Potential New Categories for Pretreatment Standards

EPA solicits comments on its evaluation of categories of indirect dischargers without categorical pretreatment standards. Specifically, EPA solicits wastewater characterization data (*e.g.*, wastewater volumes, concentrations of discharged pollutants), current examples of pollution prevention, treatment technologies, and local limits for all industries without pretreatment standards. EPA also solicits comment on whether there are industrial sectors discharging pollutants that cause interference issues that cannot be adequately controlled through the general pretreatment standards. Finally, EPA solicits comment on how better to access and aggregate discharge data reported to local pretreatment programs. Currently, pollutant discharge data are collected by the local pretreatment program to demonstrate compliance with pretreatment standards and local limits but are not typically electronically transmitted to the States or EPA Regions.

I. Industrial Water Conservation, Reuse and Recycling Technology Transfer

EPA requests data to evaluate the costs, benefits, and impacts of industrial water conservation practices. In particular, EPA solicits the following industrial sector or facility level data on water re-use and reduction technologies and pollution prevention practices:

- The main reasons why these technologies and practices were adopted (*e.g.*, limitations to source water, increased water purchasing or treatment costs), and whether these technologies and practices are transferable to other facilities.

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- Descriptions of the water conservation technologies and practices employed at industrial unit operations; wastewater flow and pollutant data; and descriptions of the extent to which these water conservation technologies and practices reduce the amount of wastewater volume, the mass of wastewater pollutants resulting from an industrial unit operation, or both.
- Detailed descriptions of the wastewater treatment and the annual costs of operating wastewater treatment to maintain compliance with the facility's effluent limits.
- Detailed descriptions of the capital and annual costs associated with implementing water conservation technologies and practices and any cost savings resulting from water conservation technologies and practices.

Additionally, EPA solicits estimates of the amount of increased water conservation and the number of facilities that will likely adopt more advanced water conservation technologies and practices over the next five years as a result of limitations on water source availability or potential costs savings.

Dated: September 5, 2008.

Benjamin H. Grumbles,

Assistant Administrator for Water.

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ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–ORD–2008–0649; FRL–8715–6]

Board of Scientific Counselors (BOSC), Human Health Subcommittee Meetings—Fall 2008 and Winter 2009

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of meetings.

SUMMARY: Pursuant to the Federal Advisory Committee Act, Public Law 92–463, the Environmental Protection Agency, Office of Research and Development (ORD), gives notice of three meetings of the Board of Scientific Counselors (BOSC) Human Health Subcommittee.

DATES: The first meeting (a teleconference call) will be held on Friday, October 10, 2008, from 12:30 p.m. to 2:30 p.m. EDT. The second meeting (a teleconference call) will be held on Monday, December 1, 2008, from 11 a.m. to 2 p.m. EST. The third meeting (face-to-face) will begin on Tuesday, January 13, 2009 and conclude on Thursday, January 15, 2009. The meetings may adjourn early if all business is finished. Requests for the draft agendas or for making oral presentations at the meetings will be accepted up to one business day before each meeting.

ADDRESSES: The face-to-face meeting will be held at the EPA's RTP Main Campus Facility, 109 T.W. Alexander Drive, Research Triangle Park, North Carolina 27711. Submit your comments, identified by Docket ID No. EPA–HQ–ORD–2008–0649, by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail:* Send comments by electronic mail (e-mail) to: *ORD.Docket@epa.gov*, Attention Docket ID No. EPA–HQ–ORD–2008–0649.
- *Fax:* Fax comments to: (202) 566–0224, Attention Docket ID No. EPA–HQ–ORD–2008–0649.
- *Mail:* Send comments by mail to: Board of Scientific Counselors (BOSC), Human Health Subcommittee