

ENVIRONMENTAL ADVOCATES

BUILDING 1004B O'REILLY AVENUE
SAN FRANCISCO, CALIFORNIA 94129
(415) 561-2222, EXT. 108
FAX: (320) 205-3163

March 18, 2004

Administrator Mike Leavitt
Water Docket
U.S. Environmental Protection Agency
Mail Code: 4101 T
1200 Pennsylvania Avenue, NW.
Washington, DC 20460
Attention Docket ID No. OW-2003-0074

Dear Administrator Leavitt:

In response to the Public Notice published at 69 Fed. Reg. 6984 (Feb.12, 2004), Ecological Rights Foundation (ERF), Our Children's Earth Foundation (OCE) and Waterkeepers Northern California¹ (Waterkeepers) hereby provides comments to the U.S. Environmental Protection Agency (EPA)'s Preliminary Effluent Guidelines Program Plan for 2004/2005 ("the EGP"). ERF, OCE and Waterkeepers believe that the EGP as proposed violates CWA section 304(m)(1)² and CWA section 301(d)³ in four key respects. Specifically, the EGP fails:

- (1) to provide for annual review of *all* the effluent guidelines EPA has promulgated for fifty-five classes and categories and 450 subcategories of industry *and* revision of such effluent limitation guidelines in accord with CWA section 304(b)⁴ as mandated by CWA section 304(m)(1)(A);⁵
- (2) to identify categories of sources discharging toxic or nonconventional pollutants for which guidelines under CWA sections 304(b)(2) and 306⁶ have not previously been

¹ Waterkeepers Northern California is the parent organization of three projects: San Francisco Baykeeper, Deltakeeper and Petaluma Riverkeeper.

² 33 U.S.C. § 1314(m)(1).

³ 33 U.S.C. § 1311(d).

⁴ 33 U.S.C. § 1314(b).

⁵ 33 U.S.C. § 1314(m)(1)(A).

⁶ 33 U.S.C. §§ 1314(b)(2), 1316.

published as mandated by CWA section 304(m)(1)(B);⁷

- (3) to establish a schedule for promulgation of effluent guidelines for categories of sources for which effluent guidelines have not previously been published as mandated by CWA section 304(m)(1)(C)⁸ (such schedule was supposed to provide for promulgation of effluent guidelines no later than 4 years after February 4, 1987, for categories identified in EPA's 1988 EGP, and 3 years after the publication of the plan for categories identified in later published plans); and
- (4) to provide for review and revision of effluent limitations established pursuant to CWA section 301(b)(2) every five years as mandated by CWA section 301(b)(2).⁹

ERF, OCE and Waterkeepers urge EPA to revise the EGP to correct all four of these deficiencies and to comply with EPA's mandatory CWA duties to review, revise and promulgate new effluent guidelines.

II. FACTUAL BACKGROUND

CWA section 304(b) requires EPA to promulgate regulations setting forth effluent limitation guidelines ("effluent guidelines"). 33 U.S.C. § 1314(b). Effluent guidelines are to be used "for the purpose of adopting or revising [the technology-based] effluent limitations" required by CWA section 301(b). *Id.* The latter include effluent limitations based on best available technology economically achievable (BAT) (*see* CWA § 301(b)(2), 33 U.S.C. § 1311(b)(2)), on best practicable control technology currently available (BPT) (*see* CWA § 301(b)(1)(A), 33 U.S.C. § 1311(b)(1)(A)), and best conventional pollutant control technology (BCT) (*see* CWA § 301(b)(2)(E), 33 U.S.C. § 1311(b)(2)(E)). EPA must establish effluent guidelines for "classes and categories" of point sources, i.e., for different categories of industries which discharge water pollutants. 33 U.S.C. § 1314(b). The CWA requires EPA to have promulgated effluent guideline regulations by October 18, 1973. CWA sections 304(b) and 304(m)(1)(A) require EPA to annually review *each* of its effluent guideline regulations and revise them, if appropriate. 33 U.S.C. § 1314(b), (m)(1)(A).¹⁰ CWA section 304(m)(1)(B)

⁷ 33 U.S.C. § 1314(m)(1)(B).

⁸ 33 U.S.C. § 1314(m)(1)(C).

⁹ 33 U.S.C. § 1311(b)(2).

¹⁰ Specifically, CWA section 304(b) provides that EPA must publish regulations establishing effluent guidelines by October 18, 1973 and "at least annually thereafter, revise, if appropriate, such regulations." CWA section 304(m)(1)(A) adds that by February 4, 1988, and biennially thereafter, EPA must publish in the Federal Register a plan which shall "establish a schedule for

requires EPA to identify categories of industries discharging toxic or nonconventional pollutants for which effluent guidelines have not previously been published. 33 U.S.C. § 1314(m)(1)(B). CWA section 304(m)(1)(C) requires EPA to establish a schedule for promulgation of effluent guidelines for categories of industry for which effluent guidelines have not previously been published. 33 U.S.C. § 1314(m)(1)(C). Such schedule must provide for promulgation of effluent guidelines by February 4, 1991 for categories identified in EPA's 1988 EGP and three years after the publication of the plan for categories identified in later published plans. Finally, CWA section 301(d) requires EPA to review BAT-based effluent limitations at least every five years and, if appropriate, revise such limitations. 33 U.S.C. § 1311(d).

A. EPA Review of Effluent Guidelines

EPA has promulgated effluent limitation guidelines for fifty-five classes and categories and over 450 subcategories of industrial water polluters. EPA is required to annually review the guidelines for *each* of these fifty-five classes and categories and 450 subcategories.¹¹ In the

the *annual review* and revision of promulgated effluent guidelines, in accordance with" CWA section 304(b) (emphasis added).

¹¹ EPA may not escape the duty to review the effluent limitations for industrial groupings by labeling them "subcategories" rather than employing the statutory term "classes and categories." CWA § 304(b), 33 U.S.C. § 1314(b). What EPA has denominated "subcategories" of industrial dischargers are functionally the same as "classes and categories," i.e., the subcategories are like-grouped industrial facilities with guidelines on the pollution reduction attainable by them via the application of BAT, BPT and/or BCT. This is reflected in EPA effluent guideline regulations establishing different BAT, BPT and BCT limitations for different point source subcategories. See e.g., 40 C.F.R. part 419, subparts A-E (Subcategories under Petroleum Refining.). In so doing, EPA has implicitly recognized that each of these subcategories is a functionally distinct category of industrial polluter, with different production methods, different pollutant discharges, different treatment options, and different financial feasibility circumstances. In addition, the industries that EPA characterizes as subcategories are typically referred to by separate and distinct Standard Industrial Classification (SIC) codes. SIC codes were established by the SIC Codes Interdepartmental Committee on Industrial Statistics, established by the Central Statistical Board of the United States "to develop a plan of classification of various types of statistical data by industries and to promote the general adoption of such classification as the standard classification of the Federal Government." See <http://www.census.gov/epcd/www/naicsdev.htm> Accordingly, the federal government has a well established policy of recognizing sectors with differing SIC codes as separate and distinct classes or categories of industry. Thus, EPA's industrial subcategories must be seen as indistinguishable from "classes and categories" as the latter term is used in CWA section 304(b).

EGP, EPA is manifestly proposing *not* to review all fifty-five classes and categories and 450 subcategories of effluent guidelines in 2004 or in 2005. This failure is on top of EPA's cumulative backlog of failure to review effluent guidelines: EPA has not reviewed the effluent guidelines for some of these classes, categories and subcategories for up to twenty-three years, and EPA has *never* reviewed at least some of these effluent guidelines since EPA first promulgated them.¹²

The effluent guidelines review planned for 2004 and 2005 in the EGP was shaped in large measure by EPA's effluent guidelines review effort for calendar year 2003. *See* 68 Fed. Reg. 75515 (Dec. 31, 2003). In 2003, as EPA explains in the Federal Register Notice setting out the EGP, EPA devised four factors for deciding which of its fifty-five categories of effluent guidelines it would evaluate for potential revision. EPA identified "Factor 1" as:

consideration of the extent to which the pollutants remaining in an industrial category's discharge pose a hazard or risk to human health or the environment.

EPA identified "Factor 2" as:

identification of an applicable and demonstrated technology, process change, or pollution prevention alternative that can effectively reduce the pollutants remaining in the industrial category's wastewaters and thereby substantially reduce the hazard or risk to human health or the environment associated with these pollutant discharges.

EPA identified "Factor 3" as:

the cost, performance, and affordability of the technology, process change, or pollution prevention measures identified using the second factor.

EPA identified "Factor 4" as:

¹² According to Appendix 1 to EPA's Draft Strategy for National Clean Water Industrial Regulations, EPA has not reviewed: (1) BAT for the Electroplating effluent guidelines since 1981, (2) Ore Mining's effluent guidelines since 1988, (3) Battery Manufacturing's effluent guidelines since 1986, (4) BAT for Plastic Manufacturing since 1984 and BPT and BCT for this industry since 1985, (5) Metal Molding's effluent guidelines since 1986, (6) Coil Coating's effluent guidelines since 1985, (7) Porcelain Enameling's effluent guidelines since 1985, (8) Aluminum Forming's effluent guidelines since 1988, (8) Copper Forming's effluent guidelines since 1986, (9) Electrical and Electronic Components' effluent guidelines since 1985, and (10) Nonferrous Metals Forming and Metal Powders since 1989.

implementation and efficiency considerations and recommendations from stakeholders[,] 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.

68 Fed. Reg. 75520-21.

EPA further indicated that consideration of its "Factor 4" "might also prompt EPA to decide . . . against scheduling an existing effluent guideline for revision where the pollutant source is already efficiently addressed by another regulatory program or by non-regulatory programs." 68 Fed. Reg. at 75521. In addition, EPA indicated that it may determine that voluntary pollution reduction efforts by an industry constitute appropriate basis for not revising the effluent guideline for that industry. 68 Fed. Reg. at 75522. Finally, EPA indicated that it had elected not to review effluent guidelines that it had promulgated within the past seven years. 68 Fed. Reg. at 75521.

In its Federal Register Notice, EPA went on to explain that it had found it difficult to compile the information necessary to evaluate its Factors 2 and 3 in 2003. EPA indicated that as a result, its ostensible annual review of effluent guidelines for 2003 had consisted only of "collecting and analyzing screening-level data to identify industrial categories whose pollutant discharges potentially pose the greatest hazards or risks to human health and the environment because of their toxicity" and an additionally vaguely described consideration of "efficiency and implementation issues." 68 Fed. Reg. at 75521. Employing these factors, EPA identified only two industrial categories for any detailed evaluation in 2004: Organic Chemicals, Plastics, and Synthetic Fibers;¹³ and Petroleum Refining.¹⁴

EPA further indicated that it had elected to re-write CWA section 304(b) from an annual review process to a two year, phased review. In 2004, EPA intends not to repeat the more broadly framed screening effort it conducted in 2003. Instead, EPA in 2004 will mostly focus on evaluating the technological and economic feasibility of more stringent treatment standards for just two industries, manufacture of Organic Chemicals, Plastics and Synthetic Fibers and Petroleum Refining. EPA may conduct some additional limited review of the health and environmental risks posed by discharges from other industries, but has no intent to study the technological and economic feasibility of more stringent treatment standards for these industries. 68 Fed. Reg. at 75521.

¹³ Effluent guidelines for this industrial category are codified at 40 C.F.R. part 414.

¹⁴ Effluent guidelines for this industrial category are codified at 40 C.F.R. part 419.

B. EPA Identification of New Categories of Industry and Promulgation of New Effluent Guidelines

CWA section 304(m)(1)(B) requires EPA to identify categories of industries discharging toxic or nonconventional pollutants for which effluent guidelines have not previously been published. 33 U.S.C. § 1314(m)(1)(B). CWA section 304(m)(1)(C) further requires EPA to establish a schedule for promulgation of effluent guidelines for such new categories of industry. 33 U.S.C. § 1314(m)(1)(C). Such schedule must provide for promulgation of effluent guidelines by February 4, 1991 for categories identified in EPA's 1988 EGP and three years after the publication of the plan for categories identified in later published plans.

C. EPA Review and Revision of BAT-Based Effluent Guidelines

CWA section 301(d) requires EPA to review BAT-based effluent limitations at least every five years and, if appropriate, revise such limitations. 33 U.S.C. § 1311(d). EPA's regulations set forth at 40 C.F.R. subchapter N establish both effluent guidelines under CWA section 304(b) *and* effluent limitations under CWA section 301(b). Whenever EPA has failed to review these regulations, it has necessarily failed to both review the effluent guidelines and the effluent limitations for the industries in issue. EPA has failed to review BAT-based effluent limitations for many categories of industry for up to twenty-three years.

III. IN THE EGP, EPA PROPOSES TO CONDUCT AN EFFLUENT GUIDELINE REVIEW THAT CONFLICTS WITH EPA'S MANDATORY CWA DUTIES

A. EPA Failure To Review Effluent Guidelines Annually

As noted, CWA section 304(b) and (m)(1)(A) require EPA to annually review its effluent guidelines for *each* of the fifty-five classes and categories and 450 subcategories of industry established by EPA. EPA is in on-going violation of this mandatory duty to review its effluent guideline regulations as it *did not* review the guidelines for all of these classes, categories and subcategories in 2003, nor has EPA ever, in any given year, reviewed all of the guidelines for these classes, categories and subcategories. Indeed, EPA has not reviewed the effluent guidelines for some of these classes, categories and subcategories for nineteen years, and EPA has *never* reviewed at least some of these effluent guidelines since EPA first promulgated them. Finally, EPA is in on-going violation of its CWA section 304(b) and (m)(1)(A) duties as it is expressly limiting its presently on-going annual review of effluent guidelines for 2004 to a review of the effluent guidelines for two classes and categories of industry: Organic Chemicals, Plastics and Synthetic Fibers and Petroleum Refining.

In the EGP, EPA has impermissibly truncated its mandatory duty under CWA section 304(b) and (m)(1)(A) to review all effluent guidelines in six specific manners: (1), by failing to gather and/or analyze information sufficient to make reasoned conclusions concerning the

technological and economic feasibility of more stringent effluent guidelines, (2) by improperly relying on its evaluation of the health and environmental risks posed by different industries to decide to review only a subset of its effluent guidelines, (3) by impermissibly declining to review effluent guidelines on the basis that the water pollution problems potentially caused by that industry are being dealt with more “efficiently” by other regulatory and non-regulatory means, (4) by impermissibly declining to review any effluent guideline promulgated within the past seven years, (5) by impermissibly declining to review effluent guidelines based on a finding that there are only a few facilities in that industry discharging pollutants or pollutants that pose risks to water quality, and (6) by determining that EPA may make the annual review specified by CWA sections 304(b) and (m) into a two year phased review. *See* 68 Fed. Reg. 75520-21.

1. EPA Failure To Gather and Analyze Sufficient Information

The central Congressional purpose behind CWA sections 304(b) and (m)(1)(A) is for EPA to regularly review the technological and economic feasibility of the nation’s industries reducing their water pollutant discharges. In 2003, EPA thwarted this central purpose by conducting such a paltry examination of the technological and economic issues related to such pollutant reductions that EPA now can not, by its own express admission, come to any conclusions, even preliminary, about whether such pollution reductions are technologically and economically feasible. The EGP perpetuates this on-going failure for 2004 and 2004 as the EGP lacks a “schedule” for gathering and reviewing the information needed to assess the technological and economic feasibility of pollution reduction from all point source categories, as required by CWA section 304(m)(1)(A.)

In the Federal Register Notice accompanying the EGP and the EPA report entitled Factor 2 Analysis: Technology Advances and Process Changes - Status of Screening Level Review Phase (“Factor 2 Report”),¹⁵ EPA continually refers to either lack of data or inability to analyze data in its possession as a reason why EPA could not conclude whether pollution reductions could be technically and economically achievable for a given category of industry. 68 Fed. Reg. 75521-22, 75528. An EPA memo dated December 23, 2003 similarly states:

A meaningful collection and review of Factor 2 data proved more resource-intensive than anticipated for a screening-level review of all industries. Data sources are widely scattered and often lack sufficient detail and process specificity to be useful at a screening level for all industries.

See “Description and Results of EPA Methodology to Synthesize Screening Level Results for the Effluent Guidelines Program Plan for 2004/2005 (“Methodology Memo”) at 3.

¹⁵ Published on the EPA webpage at: <http://www.epa.gov/ost/guide/304m/factor2.pdf>

EPA also did not analyze Factor 3 data, also relevant to the establishment of effluent guidelines under Section 304(b), relating to the technological and economic feasibility of technology advances:

EPA could not identify a suitable Factor 3 screening level tool which would, by itself, identify industries for further study. EPA could not produce an economic analysis of all industry categories with existing effluent guidelines with the resources and time available as this universe of facilities is too numerous, broad, and complex.

See Methodology Memo at 3.

The EPA's approach is unlawful since it precludes the relevant factors for updating effluent guidelines -- technology advances and feasibility -- from consideration at the crucial first stage of screening.

EPA has ample authority under CWA section 308 to gather information needed to analyze the technological and economic feasibility of water pollutant discharge reduction. The Factor 2 Report, however, indicates that EPA did not utilize its CWA section 308 authority to require point sources to provide any information on treatment technology or process changes or costs versus financial resources needed to assist EPA to perform its 2003 annual review of effluent guidelines. Factor 2 Report at 1-4. Moreover, it appears from the EGP that EPA intends to only use its information gathering authority under CWA section 308 to acquire such information in 2004 for two industries: Organic Chemicals, Plastics, and Synthetic Fibers and Petroleum Refining. This represents continued failure to gather the information EPA needs to fulfill its statutory mandates.

The Factor 2 Report indicates that the EPA division responsible for reviewing effluent guidelines, the Engineering and Analysis Division (EAD) gathered secondary source (though no primary source) data on emerging treatment and process technologies included in EPA's Office of Compliance Sector Notebooks, industry journals, and industry association publications and web sites. Factor 2 Report at 2-1. In 2003, however, EAD performed little actual analysis of any of this information. To begin, EAD employed its Factors 1 and 4 to arrive at a subset of only twenty categories of industry that it would evaluate for the technical and economic feasibility of reducing water pollutant discharge. Factor 2 Report at ES-2. Of these twenty categories of industry, however, EAD actually evaluated the treatment and process change possibilities *for only five industries*: (1) Aluminum Manufacturing and Forming; (2) Construction Products; (3) Industrial Organic Chemicals; (4) Oil and Gas Field Services; and (5) Semiconductor Manufacturing. Factor 2 Report at 3-1. Even for these five industries, EPA's analysis of available data was highly limited. EPA apparently did not weigh in any detailed fashion even readily available information in trade association or industry journals, for example. Factor 2 Report at 2-2 to 2-3.

The Factor 2 Report further indicates that EAD is aware of at least one other potential source of information on developments in water pollution control treatment and process change technologies: EPA Clean Water Act Recognition Awards which EPA gives to specific facilities that have achieved innovation in treatment or production methods that reduce water pollutant discharges. Apparently, EAD did not actually consider any information in EPA's possession gathered in the process of assigning these awards, even though such information might provide significant insights into the feasibility of new treatment and process technologies. Factor 2 Report at 2-2.

The EGP perpetuates EPA's failure to analyze information concerning water pollution treatment and process change technologies. Under the EGP, EPA intends to perform the needed detailed analysis on only two industries. The CWA, however, requires EPA to analyze annually whether "economically achievable" changes in process or treatment technologies have been developed in any of the fifty-five categories of industry identified by EPA.

EPA's implicit assertion that the gathering of necessary Factor 2 and 3 information is too "resource intensive" for the 304(m) review process is simply contrary to CWA statutory directives. ERF, OCE and Waterkeepers note that EPA's Analytical memo states that the "304(m) Team" is comprised of a team leader, and "contributions of time" from an engineer, an economist, an environmental assessor, a GIS/database analyst, analytical methods staff, and a statistician, with an overall budget of between "\$600K to \$950K." *See* Analytical Blueprint for the Effluent Guidelines Program Plan for 2004/2005 ("Analytical Blueprint") at 15. Given the importance of this Program to implementing technological advances in reducing the discharge of pollutants, it appears that EPA continues to woefully understaff effluent guideline review.

2. Improper Reliance on Environmental Risk "Factor 1" Screening

Congress has mandated that EPA's effluent guidelines provide guidance on the amount of pollution reduction that is attainable by the application of differing standards of treatment technology, for use in setting enforceable technology-based effluent limitations pursuant to CWA section 301. As envisioned by Congress, EPA's promulgation of effluent guidelines is essentially an exercise in evaluating the technical and economic achievability of specific pollution treatment methods or production process changes that reduce pollution. This reflects Congress' basic two prong water pollution control strategy reflected in the CWA. First, EPA and the states are to set technology-based effluent limitations that generally require uniform pollution reduction equal to what is technically and economically achievable by the various classes and categories of industries nationwide. Such technology-based limits are supposed to be set regardless of the water quality needs or benefits associated with this level of pollution reduction. Second, EPA and the states are to evaluate whether additional water quality problems or hazards persist despite the application of such technology-based effluent limitations. EPA and the states are then to set additional water quality-based effluent limitations needed to eliminate any still persisting water quality problems. CWA section 304(b) effluent guidelines are

supposed to assist the implementation of the first prong, by providing EPA and the states guidance on setting technology-based effluent limitations equal to the level of pollution reduction technically and economically achievable.

EPA has entirely ignored Congressional intent when EPA determined that it could use a cursory evaluation of the relative environmental and human health risks posed by the water pollutant discharges of given classes and categories of industry as the *sole criteria* in determining whether to consider revising effluent guidelines for those classes and categories. See 68 Fed. Reg. 75520-22; EPA, Factor 1 Analysis: Human Health and Environmental Impacts (“Factor 1 Report”).¹⁶ Employing this methodology, EPA has determined that in 2004 and 2005, it will analyze the technical and economic attainability of more stringent treatment standards for *only two of the fifty-five classes and categories* of industries for which EPA has set effluent guidelines. 68 Fed. Reg. 75522. EPA has thus affirmatively determined *not to examine* whether fifty-three of its fifty-five classes and categories of industries could technically and economically attain lower levels of pollutant discharge, based on EPA’s determination that these fifty-three other classes pose relatively lower environmental risk than the two EPA has chosen for review. Congress, however, did not intend that EPA could only look at the technical and economic attainability of lower pollution levels for a small subset of the industries that EPA has deemed the most dangerous to the environment. Instead, EPA has a mandatory duty pursuant to CWA section 304(b) to establish the technically and economically attainable levels of pollution reduction that are commensurate with BPT, BAT, and BCT for *all* classes and categories of industry.

A look at EPA’s efforts and ability to evaluate the relative environmental risks posed by the discharges from different industries underscores the wisdom of Congress’ approach of mandating a technical floor of water pollution treatment and control without consideration of the environmental harms associated with particular dischargers. Before Congress fundamentally altered the CWA in 1972, the federal government had to prove that discharges were causing environmental harm before they could be regulated. This system proved entirely unworkable; regulators were simply unable with reasonable expenditure of resources and within reasonable timeframes discern water pollution’s impacts, prove their causes and prescribe the levels of control needed to restore water quality. EPA’s attempt at its Factor 1 environmental and health assessment underscores that these practical difficulties persist.

¹⁶ As part of this methodology, EPA screened out for further consideration revision of effluent guidelines for industries where EPA found the environmental risks associated with the industry to be unknown or where EPA found that only one or a few facilities were the source of most of the environmental risk. 68 Fed. Reg. 75521. EPA’s decisions in this respect are contrary to CWA sections 304(b) and (m)(1), which do not provide that EPA may limit its review of effluent guidelines to industries where the environmental risks are known or where numerous facilities are potentially contributing to water quality degradation.

EPA's Factor 1 Report acknowledges that after thirty years of CWA implementation, EPA and the States still have not assessed the water quality of *the majority* of U.S. waters. Moreover, the causes and sources of impairment for many of the waterbodies that have been assessed are still unknown.¹⁷ Factor 1 Report at 12-1. With such gaps in information concerning the quality of the nation's waters and the causes of known pollution problems, it is impossible for EPA to reliably determine which industries are posing the greatest threat to water quality. EPA itself has conceded that its level of analysis in its Factor 1 assessment did "not approach the level of detail required by a formal risk assessment" as "the questions about the fate and transport modeling and exposure pathways used to estimate risk were too involved and unworkable for the current preliminary Plan." Factor 1 Report at 1-1; Methodology Memo at 4. Indeed, EPA encountered so many difficulties and imprecision with available data that its 2003 Factor 1 analysis was little better than complete speculation about the relative environmental and human health impacts of water pollutant discharges from specific industries. The conclusions emerging from this analysis have so little basis that it is unreasonable for EPA to base regulatory decisions upon them. Moreover, it is extremely unlikely that EPA will have the ability within the next few years to evaluate the relative risks posed by differing categories of industry nationwide with any reasonable level of precision.

EPA relied on two sources of information for its Factor 1 analysis in 2003: EPA Toxics Release Inventory (TRI) Data and OECA Permit Compliance System (PCS) Data. Apparently, EPA primarily relied on three-year old PCS Data, from 2000, for this analysis.¹⁸ 68 Fed. Reg. 75525; Factor 1 Report at 3-4 to 3-8.

TRI Data has severe limitations undermining its usefulness for EPA's attempted analysis. EPA's Factor 1 Report itself points out several problems with this data set. One, the list of chemicals covered by TRI reporting has changed over time, making it difficult to track levels of releases for at least certain chemicals. Two, originally, TRI reporting was only required from manufacturing sector industries, admittedly "a small fraction of the number of facilities that generate wastewater." Factor 1 Report at 2-2. While federal facilities and seven additional industries were added to TRI reporting in the 1990s, there still are numerous sources of water pollutant discharge that are not subject to TRI reporting requirements. Three, there is a very high threshold of chemical release that a given facility must be over before it is required to report TRI data. While this threshold was lowered for some chemicals in 2000 and 2001, it remains

¹⁷ EPA's 2000 Report prepared under CWA section 305(b) indicates that states have assessed the water quality of only 19 percent of the nation's total river and stream miles, 43 percent of its lake, pond, and reservoir acres, and 36 percent of its estuarine square miles. Factor 1 Report at 12-1.

¹⁸ EPA looked at other databases, but found them unusable for its 2003 Annual Review for various reasons. Factor 1 Report.

high for most chemicals (25,000 pounds for manufacturing; 25,000 pounds for processing; and 10,000 pounds for other use). Factor 1 Report at 2-2 to 2-3. Accordingly, the total universe of TRI reporting facilities analyzed by EPA is only 7,814 facilities. *Id.* at 2-8. The total number of facilities nationwide discharging water pollutants dwarfs this number. Also, TRI Data is imprecise in various respects as EPA allows facilities to report an estimated range of chemical amounts released and further allows a “*de minimus*” exception to reporting when concentrations are below a certain percent of mass of wastestreams. *Id.* at 2-7.

EPA employed the RSEI model to attempt to estimate chronic human health risk-related impacts associated with TRI reported release of water pollutants. As EPA acknowledged, however, the RSEI model does not address potential acute human health risks or risks to aquatic life--obviously significant components of water pollution problems. Nor did application of this model allow EPA to account for multiple chemical exposures, severity of effects, multiple health effects, or human dermal absorption. Factor 1 Report at 2-4.

PCS Data also has severe limitations undermining its reliability for EPA’s attempted analysis. EPA’s Factor 1 Report identifies several of these limitations: (1) generally, only pollutant discharges from major facilities that directly discharge to navigable water and have an individual NPDES permit are captured by PCS; the numerous “minor” permitted facilities, facilities covered by general permits, and unpermitted facilities that discharge water pollutants are not captured in the PCS database, (2) data entered into PCS undergo limited QA/QC screening prior to their addition, (3) PCS data is entered manually and therefore errors in the data entry can occur, (4) EPA and the States have failed to enter the SIC codes for one-fourth of the facilities in the PCS database, making it impossible to tell what industry these facilities are in, (5), PCS reports the primary SIC code that represents the principal activity causing the facility’s discharge, meaning other activities may be ongoing at the facility that would not be reflected in PCS, and (6) PCS contains no data for pollutant discharges that a facility is not required by its NPDES permit to monitor or report. Factor 1 Report at 3-2 to 3-3, 12-14. The Factor 1 Report further hints at, but fails to elucidate far greater problems with PCS in acknowledging that “PCS may have incomplete data for a facility.” *Id.* at 3-3. ERF, OCE and Waterkeepers are aware that in California, at least, most Discharge Monitoring Report data for most major NPDES regulated facilities *has not* been entered into PCS due to persistent EPA and State failure to update the Region 9 PCS database. Thus, for California, at least, the PCS Database is mostly useless for tracking overall pollutant loading to the state’s waters. It seems likely that this problem is repeated to at least some degree in other parts of the United States. Even when EPA and the States are diligent in attempting to keep the PCS database updated, the design of PCS severely limits the ability to record pollutant discharge with any precision. PCS does not provide for the entry of several types of pollutant discharge. PCS does not allow for the entry of multiple data points for a given pollutant discharge for a given month.

EPA itself has expressly conceded that “reported discharges in PCS and TRI do not represent a national estimate of pollutant discharges for a variety of reasons.” Methodology

Memo at 15. EPA has further acknowledged it could not “place a great deal of weight in its screening analyses on the exact rank of an industrial category in terms of pollutant discharges reported to TRI or PCS,” pointing out problems such as:

EPA’s effort to estimate the hazard posed by discharges from industry categories was limited by the lack of TWFs for certain chemicals; EPA’s effort to match facility discharges to impaired waters was limited by data gaps in industry monitoring/reporting of discharges and in the ambient monitoring used by States to develop their lists of impaired waters.

Id. at 16-17.

The Factor 1 Report discusses using additional databases for future EPA efforts to compare the risks associated with discharges from various industries, but these databases likewise are severely limited. For example, the EPA Office of Science and Technology Sediment Contaminant Point Source Inventory Data (OST Data) database EPA proposes to use in the future has four major limitations identified by EPA: 1) inability to predict whether a point source release contributes to a sediment contamination problem; 2) inability to predict where point source releases might contribute to sediment contamination (i.e., the geographic analyses are limited to identifying areas or watersheds where point source releases occur); 3) inability to access contributions from nonpoint sources (e.g., pesticides and household chemicals) and from point sources not represented in the PCS or TRI databases; and 4) the data set is significantly outdated, as it dates back to 1997. Factor 1 Report at 6-2.

In sum, EPA’s dismal failure at ranking the pollutant risk posed by different industrial sectors underscores that this methodology is not only unlawful, it is an unworkable policy approach to scheduling effluent guideline review.

3. Improper Decision Not To Review Effluent Guidelines on Basis that other Regulatory and Non-Regulatory Programs/Voluntary Efforts Are Addressing Water Pollution.

In the EGP, EPA has thwarted Congressional intent and violated its mandatory duty under CWA section 304(b) and (m)(1)(A) by deciding not to review effluent guidelines for industries based on a finding that the water pollution problems associated with that industry are being “efficiently” addressed by other regulatory or non-regulatory programs and/or the voluntary efforts at pollution reduction adopted by an industry. 68 Fed. Reg. 75522. Nothing in CWA section 304(b) and (m)(1)(A) remotely suggest that EPA may properly decide not to review effluent guidelines for any given industry because other provision of law or the voluntary efforts at pollution reduction by that industry are reducing environmental risks associated with water pollutant discharges from that industry. While it may be commendable for an industry to voluntarily reduce its water pollutant discharges, such voluntary reductions (which may of

course be undone should an industry decide it expedient) are hardly the basis for finding that BPT, BAT and BAT for an industry have not changed.

4. Improper Refusal To Review any Effluent Guideline Promulgated within the Past Seven Years.

EPA has further thwarted Congressional intent and violated its mandatory duty under CWA section 304(b) and (m)(1)(A) by arbitrarily deciding that it can, without any further basis, eliminate for review the effluent guideline of any industry that EPA has revised in the last seven years. EPA could only so proceed if it had an administrative record supporting a finding that no industries in the United States have experienced technological or economic developments within the last seven years that have changed what is BPT, BAT, or BCT for any American industry. EPA clearly lacks such a record, as EPA has by its own admission made no inquiry into such technological and economic developments in any industry for which EPA has promulgated effluent limitations within the past seven years. *See* 68 Fed. Reg. 75521.

5. Improper Refusal to Review Effluent Guidelines Where Discharges are Limited to a Few Facilities.

EPA's decision not to revise guidelines where the "estimated hazards are limited to only one or a few facilities" is also unlawful for two reasons. First, as discussed, it ignores the relevant question of whether feasible technology is available to reduce discharges. Second, it ignores the role of effluent guidelines in providing a framework and generally applicable standard for future permitting. We further do not agree that EPA's resources are better used on a facility by facility analysis, where a promptly enacted effluent guideline would allow for streamlined permitting to occur in the future.

6. Unlawful Two-Year Review.

CWA sections 304(b) and (m) unequivocally specify an *annual* review of effluent guidelines. EPA may not permissibly decide that its review should be a two year process.

B. EPA Failure To Identify New Categories of Industry for Effluent Guideline Promulgation

1. EPA's Decision to Identify New Sources of Pollutants As Sub-Categories Not Requiring Identification under Section 304(m)(a)(B) is Unlawful.

EPA may not lawfully avoid its duty to review the effluent limitations of new categories of point sources by labeling these sources "subcategories" rather than employing the statutory term "classes and categories."

First, what EPA has denominated “subcategories” of industrial dischargers are functionally the same as “classes and categories,” i.e., the subcategories are like-grouped industrial facilities with guidelines on the pollution reduction attainable by them via the application of BAT, BPT and/or BCT. Accordingly, these subgroupings are indistinguishable from “classes and categories” as the latter term is used in CWA section 304(b). We note that the Clean Water Act provides no statutory support for the establishment of “subcategories” of pollution discharges, and thus EPA has no basis for defining such categories of discharge in a manner which avoids EPA’s obligation under Sections 304(m)(1)(B) and (C).¹⁹

Second, this approach is inconsistent with EPA’s own regulations and with the federal government’s SIC Code classification system and policy. EPA regulations establish specific effluent guidelines for each subcategory of industry and different BAT, BPT and BCT limitations for different point source subcategories. *See e.g.*, 40 C.F.R. part 419, subparts A-E (Subcategories under Petroleum Refining). In so doing, EPA has implicitly recognized that a subcategory is a functionally distinct category of industrial polluter, with different production methods, different pollutant discharges, different treatment options, and different financial feasibility circumstances. Also, many of the industries that EPA proposes to characterize as subcategories not requiring identification under Section 304(m)(1)(B) have separate SIC codes. SIC codes were established by the SIC Codes Interdepartmental Committee on Industrial Statistics, established by the Central Statistical Board of the United States “to develop a plan of classification of various types of statistical data by industries and to promote the general adoption of such classification as the standard classification of the Federal Government.” *See <http://www.census.gov/epcd/www/naicsdev.htm>* Accordingly, the federal government has a well established policy of recognizing sectors with differing SIC codes as separate and distinct classes or categories of industry. Thus, EPA’s subcategories should be treated as classes and categories of industry within the meaning of CWA section 304(b) and (m)(1)(B).

Third, the purpose of section 304(m)(1)(C) is to insure expeditious development of effluent guidelines whenever a new category of industry discharging pollutants is recognized. EPA is skirting this section’s time schedule provisions by deeming a distinct industry to be part of the ongoing assessment of existing effluent guidelines *even though existing effluent guidelines do not cover this distinct industry*. This approach violates the intent of CWA section

¹⁹ For example, EPA calls the chemical formulating, packaging, and repackaging industry a subcategory of the Organic Chemicals, Plastics, and Synthetic Fibers industry and the petroleum bulk stations and terminals a subcategory of the Petroleum Refining industry. Regardless of EPA’s naming convention, the fact remains that there is no effluent guideline for either the chemical formulating, packaging, and repackaging industry or petroleum bulk stations and terminals, making these industries new categories of source within the meaning of CWA section 304(m)(1)(B) and (C). Accordingly, EPA has a mandatory duty under the CWA to schedule and complete promulgation of effluent guidelines for both industries within three years.

301(m)(1)(C).

Thus, EPA's decision to fail to identify subcategories of industry as categories under CWA section 304(m)(1)(B) is unlawful.

2. EPA's Decision to Exclude Certain New Source Categories from Identification under Section 304(m)(a)(B) Is Unlawful.

ERF, OCE and Waterkeepers also oppose the manner in which EPA has eliminated certain new source categories from identification for effluent guidelines promulgation under CWA section 304(m)(1)(B) based on various unlawful grounds. EPA is clearly aware of numerous categories of industry that discharge water pollutants for which EPA has failed to promulgate effluent guidelines. *See* 68 Fed. Reg. 75526-27; Factor 1 Report at B-3, Table B-2: Toxic-Weighted Pound Equivalents Discharges by Industries Not Regulated by Existing Effluent Guidelines. Indeed, Stakeholders commenting on EPA's draft strategy for effluent guideline revision identified thirteen potential new categories of industries for promulgation of new effluent guidelines. Also, EPA's Federal Register Notice accompanying the EGP states that EPA has identified chemical formulating, packaging, and repackaging (including adhesives and sealants) operations and petroleum bulk stations and terminals as categories of industry not currently regulated by effluent guidelines. 68 Fed. Reg. 75527-28. EPA improperly decided not to formally name any of these industries in the EGP and schedule promulgation of new effluent guidelines for these industries within the next three years, however. 68 Fed. Reg. 75529. EPA improperly eliminated several of these from contention based on findings that: (1) EPA would consider whether to provide region, State, or facility-specific permit support for the category of industry,²⁰ (2) EPA had not identified the industry as a hazard or risk priority based on its Factor 1 screening or other analysis, (3) EPA had incomplete data available to analyze the industry, and (4) industry categories not currently regulated by a set of effluent guidelines discharge non-trivial amounts of toxic or non-conventional pollutants to waters of the U.S. 68 Fed. Reg. 75526-27; Methodology Memo at 4.

C. EPA Failure To Establish a Schedule for Promulgation of Effluent Guidelines for New Categories of Sources

CWA section 304(m)(1)(C) requires EPA to establish a schedule for promulgation of effluent guidelines for categories of industry for which effluent guidelines have not previously been published. 33 U.S.C. § 1314(m)(1)(C). Such schedule must provide for promulgation of effluent guidelines by February 4, 1991 for categories identified in EPA's 1988 EGP and three

²⁰We believe, for example, that EPA's decision not to identify and promulgate an effluent guideline for such categories as coalbed methane extraction based on EPA "guidance" documents to be contrary to law. *See* Methodology Memo, pp. 32-33.

years after the publication of the plan for categories identified in later published plans. EPA has unlawfully not set a schedule for promulgating effluent guidelines for a number of industry categories for which there are no existing effluent guidelines, as discussed above.

In addition, EPA has indicated that it now has an on-going effort to establish effluent guidelines for two industries identified by stakeholders: aquatic animal production and storm water discharges from construction sites. The EGP impermissibly fails to schedule the promulgation of effluent guidelines for these new industries within the next three years, as required by CWA section 304(m)(1)(C), however. Indeed, the EGP impermissibly fails to schedule the promulgation of effluent guidelines for a single new category of industry.

D. EPA Failure To Review BAT Effluent Limitations Every Five Years

As noted, CWA section 301(d) specifies that EPA must review all BAT-based effluent limitations required by CWA section 301(b)(2) “at least every five years.” EPA must also revise these effluent limitations “if appropriate.” CWA section 301(b)(2) requires EPA to establish effluent limitations that reflect the BAT standard “in no case later than March 31, 1989.” Thus, EPA had a mandatory duty to establish BAT-based effluent limitations for all industries by March 31, 1989 and then review, and if appropriate, revise these effluent limitations every five years thereafter.

As noted, EPA’s regulations promulgated at 40 C.F.R. subchapter N establish both effluent guidelines and effluent limitations within the meaning of CWA section 301(b)(2). Thus, EPA has a mandatory duty to review these effluent guideline/limitation regulations at least every five years. The EGP, however, fails to provide for review of all BAT standards in EPA effluent guideline/limitation regulations that are five or more years old. Notably, the EGP reflects an express decision by EPA not to review *any* effluent guideline/limitation regulation that was promulgated within the last seven years--a clearly unlawful decision to decline to review BAT effluent limitations every five years.²¹

²¹ According to EPA’s website, EPA has promulgated effluent guidelines for the following industries since 1997: Centralized Waste Treatment, Coal Mining Point Source Category; Amendments to Effluent Limitations Guidelines and New Source Performance Standards, Concentrated Animal Feeding Operations, Commercial Hazardous Waste Combustor Subcategory of the Waste Combustors Point Source Category, Iron and Steel Manufacturing, Landfills, Meat and Poultry Products, Metal Products and Machinery, Synthetic-Based Drilling Fluids in the Oil and Gas Extraction Point Source Category, Pharmaceutical Manufacturing Industry (partially withdrawn), Pulp and Paper, and Transportation Equipment Cleaning. EPA should be scheduling the review of BAT effluent limitations established in each of these industries for no more than five years after EPA promulgated them.

IV. Specific Industries that EPA Should Target for Effluent Guideline Review and Development.

While EPA should be assessing *all* its effluent guidelines annually, ERF, OCE and Waterkeepers want to especially stress the need to review effluent guidelines for the pulp and paper industry, even though less than seven years has elapsed since the EPA Pulp and Paper Cluster Rule. ERF, OCE and Waterkeepers see a special need for EPA to review whether BAT, BPT and BCT for pulp and paper mills, including those covered by EPA's Pulp and Paper Cluster Rule, should now be set at more stringent levels. In our view, oxygen delignification and totally chlorine free (TCF) bleaching (involving ozone, peroxide and/or enzyme bleaching methods) are feasible process changes for pulp mills producing bleached pulp that EPA should find to be BAT. All such pulp mills in Japan and Sweden have had oxygen delignification since the mid-1990s, and 50% of such pulp mills worldwide employed oxygen delignification by then. J.W. Owens, Regulation of Pulp Mill Aquatic Discharges: Current Status and Needs from an International Perspective *reprinted in* M. Servos, et al., *Environmental Fate and Effects of Pulp and Paper Mill Effluents*, at 661, 664 (1996); S. Lagergren, Swedish Environmental Regulations for Bleached Kraft Pulp Mills *reprinted in* M. Servos, et al., *Environmental Fate and Effects of Pulp and Paper Mill Effluents*, at 675. Also, by 1993, over 10 years ago, 20% of Swedish bleached kraft pulp mills employed TCF bleaching. Servos, *Environmental Fate and Effects of Pulp and Paper Mill Effluents* at 675. The Louisiana-Pacific Corp. bleached kraft pulp mill located near Eureka, California established years ago that such production methods are entirely feasible in the United States.

Several other process changes for pulp mills such as improved debarking, extended delignification, recycling of bleach plant effluents to recovery boilers, condensate stripping, and should also be evaluated as potential BAT. *See id.* at 674-75.

EPA should be revising effluent guidelines to establish BAT, BPT and BCT for storm water discharges from all industrial facilities. EPA has initiated evaluation of technical feasibility of treatment of storm water as reflected in EPA Benchmark Values for such discharges, but has failed to promulgate effluent guidelines for such storm water discharges.

EPA should identify aerial spraying of pesticides and herbicides that results in discharge of pollutants to waters of the United States as a new category of industry and should promulgate effluent guidelines for such industry within three years. *See League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Forsgren*, 309 F.3d 1181, 1191-1192 (9th Cir. 2002).

EPA should identify application of aquatic plant herbicides to waters of the United States as a new category of industry and should promulgate effluent guidelines for such industry within three years. *See Headwaters, Inc. v. Talent Irrigation District*, 243 F.3d 526 (9th Cir. 2001).

EPA should also identify water seepage from gravel mining pits as a new category of industry and should promulgate effluent guidelines for such industry within three years. *See Northern California River Watch v. City of Healdsburg*, USDC Case No. C01-4686 (water seepage from gravel mining pits was a point source discharge requiring an NPDES permit from the Regional Board).

V. EPA Publication of the Effluent Guidelines Plan for 2004 Is Overdue.

CWA section 304(m) requires EPA to publish a *biennial* plan for establishing a schedule for review and revision of effluent guidelines. EPA published its last 304(m) biennial plan on August 27, 2002. 67 Fed. Reg. 55012. This last plan scheduled EPA's review and revision of effluent guidelines for calendar year 2002 and 2003. Accordingly, EPA does not currently have an 304(m) biennial plan in place which schedules EPA's review and revision of effluent guidelines for 2004 or 2005, even though EPA is now three months into 2004. EPA has stated in the Federal Register that it does not intend to publish a 304(m) plan for 2004/2005 until *the end of 2004*. This is both irrational and unlawful. In effect, EPA is stating it will establish its schedule for its review and revision actions for 2004 *after 2004 has passed*. This conflicts with CWA section 304(m)'s mandate to have a schedule in place for *future* EPA review and revision activities. EPA should rectify this CWA violation as soon as possible, and not wait until 2004 has passed to publish a schedule for EPA's 2004 review and revision actions. In the future, EPA should publish its 304(m) plans *before* the start of the year covered by the plans.

Conclusion

In sum, it is critical to note that EPA proposes in the EGP effluent guideline review and development at a snail's pace: during the next two years, EPA will complete review of the technical and economic attainability of more stringent effluent guidelines for only two categories of the existing fifty-five categories of industry for which EPA has promulgated effluent guidelines--and perhaps promulgate no new effluent guidelines. At this pace of one category of industry per year, it would take EPA fifty-five years to review all existing categories of effluent guidelines and a potentially interminable time to promulgate new effluent guidelines for all categories of industry not currently covered by such guidelines. Surely, it is unreasonable to conclude that this pace of EPA effluent guideline review and development will match the pace of feasible innovation in pollution reduction technology in the nation's industries. ERF, OCE and Waterkeepers have learned that EPA has or is slashing the number of EPA staff assigned to effluent guideline review. Unmistakably, this is a serious error, as EPA needs to increase its staffing to the point where it can complete a more reasonable, expeditious review of existing effluent guidelines and promulgate new effluent guidelines as expressly required by the CWA.

Sincerely,

Christopher Sproul
Attorney for Ecological Rights Foundation
Our Children's Earth Foundation and Waterkeeper
Northern California