Appendix C.1

Authorizing Regulations

66 FR 65256; December 18, 2001

68 FR 36749; June 19, 2003

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9, 122, 123, 124, and 125

[FRL–7105–4]

RIN 2040–AC34

National Pollutant Discharge Elimination System: Regulations Addressing Cooling Water Intake Structures for New Facilities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Today's final rule implements section 316(b) of the Clean Water Act (CWA) for new facilities that use water withdrawn from rivers, streams, lakes, reservoirs, estuaries, oceans or other waters of the United States (U.S.) for cooling purposes. The final rule establishes national technology-based performance requirements applicable to the location, design, construction, and capacity of cooling water intake structures at new facilities. The national requirements establish the best technology available, based on a two-track approach, for minimizing adverse environmental impact associated with the use of these structures.

Based on size, Track I establishes national intake capacity and velocity requirements as well as location- and capacity-based requirements to reduce intake flow below certain proportions of certain waterbodies (referred to as ''proportional-flow requirements''). It also requires the permit applicant to select and implement design and construction technologies under certain conditions to minimize impingement mortality and entrainment. Track II allows permit applicants to conduct site-specific studies to demonstrate to the Director that alternatives to the Track I requirements will reduce impingement mortality and entrainment for all life stages of fish and shellfish to a level of reduction comparable to the level the facility would achieve at the cooling water intake structure if it met the Track I requirements.

EPA expects that this final regulation will reduce impingement and entrainment at new facilities. Today's final rule establishes requirements that will help preserve aquatic organisms and the ecosystems they inhabit in waters used by cooling water intake structures at new facilities. EPA has considered the potential benefits of the rule; these include a decrease in expected mortality or injury to aquatic organisms that would otherwise be subject to entrainment into cooling water systems or impingement against screens or other devices at the entrance of cooling water intake structures. Benefits may also accrue at population, community, or ecosystem levels of ecological structures. The preamble discusses these benefits to the extent possible in qualitative terms.

DATES: This regulation shall become effective January 17, 2002. For judicial review purposes, this final rule is promulgated as of 1:00 p.m. Eastern Standard Time (EST) on January 2, 2002, as provided in 40 CFR 23.2.

ADDRESSES: The public record for this rule is established under docket number W–00–03. Copies of comments received, EPA responses, and all other supporting documents (except for information claimed as Confidential Business Information (CBI)) are available for review in the EPA Water Docket, East Tower Basement, Room EB–57, 401 M Street, SW., Washington, DC 20460. The record is available for inspection from 9:00 a.m. to 4:00 p.m. Monday through Friday, excluding legal holidays. For access to the docket materials, please call (202) 260–3027 to schedule an appointment.

FOR FURTHER INFORMATION CONTACT: For additional technical information contact Deborah G. Nagle at (202) 260–2656. For additional biological information contact Debbi Hart at (202) 260–0905. For additional economic information contact Ghulam Ali at (202) 260–9886. The e-mail address for the above contacts is *rule.316b@epa.gov.*

SUPPLEMENTARY INFORMATION:

What Entities Are Regulated by This Action?

This final rule applies to new greenfield (defined by example in section I. of this preamble) and stand alone facilities that use cooling water intake structures to withdraw water from waters of the U.S. and that have or require a National Pollutant Discharge Elimination System (NPDES) permit issued under section 402 of the CWA. New facilities subject to this regulation include those that have a design intake flow of greater than two (2) million gallons per day (MGD) and that use at least twenty-five (25) percent of water withdrawn for cooling purposes. Generally, facilities that meet these criteria fall into two major groups: new steam electric generating facilities and new manufacturing facilities. If a new facility meets these conditions, it is subject to today's final regulations. If a new facility has or requires an NPDES permit but does not meet the two MGD intake flow threshold or uses less than 25 percent of its water for cooling water purposes, the permit authority will implement section 316(b) on a case-by-case basis, using best professional judgment. This final rule defines the term ''cooling water intake structure'' to mean the total physical structure and any associated constructed waterways used to withdraw water from a water of the U.S. The cooling water intake structure extends from the point at which water is withdrawn from the surface water source up to and including the intake pumps. Today's rule does not apply to existing facilities including major modifications to existing facilities that would be ''new sources'' in 40 CFR 122.29 as that term is used in the effluent guidelines and standards program. Although EPA has not finished examining the costs of technology options at existing facilities, the Agency anticipates that existing facilities would have less flexibility in designing and locating their cooling water intake structures than new facilities and that existing facilities might incur higher compliance costs than new facilities. For example, existing facilities might need to upgrade or modify existing intake structures and cooling water systems to meet requirements of the type contained in today's rule, which might impose greater costs than use of the same technologies at a new facility. Retrofitting technologies at an existing facility might also require shutdown periods during which the facility would lose both production and revenues, and certain retrofits could decrease the thermal efficiency of an electric generating facility. Site limitations, such as lack of undeveloped space, might make certain technologies infeasible at existing facilities. Accordingly, EPA does not intend that today's rule or preamble serve as guidance for developing section 316(b) requirements for existing facilities. Permit writers should continue to apply best professional judgment in making case-by-case section 316(b) determinations for existing facilities, based on existing guidance and other legal authorities. EPA will address existing facilities fully in Phase II and Phase III rulemakings.

The following table lists the types of entities that EPA believes are potentially subject to this final rule. This table is not intended to be exhaustive; rather, it provides a guide for readers regarding entities likely to be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by this action, you should carefully examine the applicability criteria at § 125.81 of the rule. If you

have questions regarding the applicability of this action to a particular entity, consult one of the persons listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Category	Examples of regulated entities	Standard Industrial Classification (SIC) Codes	North American Industry Classification System (NAICS) Codes
Federal, State and Local Government.	Operators of steam electric generating point source dischargers that employ cooling water intake structures.	4911 and 493	221111, 221112, 221113, 221119, 221121, 221122, 221111, 221112, 221113, 221119, 221121, 221122.
Industry	Operators of industrial point source dischargers that employ cooling water intake structures.	See below	See below.
	Steam electric generating	4911 and 493	221111, 221112, 221113, 221119, 221121, 221122, 221111, 221112, 221113, 221119, 221121, 221122.
	Agricultural production	0133	111991, 11193.
	Metal mining	1011	21221.
	Oil and gas extraction (excluding offshore and coastal subcategories).	1311, 1321	211111, 211112.
	Mining and quarrying of nonmetallic minerals.	1474	212391.
	Food and kindred products	2046, 2061, 2062, 2063, 2075, 2085	311221, 311311, 311312, 311313, 311222, 311225, 31214.
	Tobacco products	2141	312229, 31221.
	Textile mill products	2211, 2261	31321.
	Lumber and wood products, except furniture.	2415, 2421, 2436, 2493	321912, 321113, 321918, 321999, 321212, 321219.
	Paper and allied products	2611, 2621, 2631, 2676, 2679	3221, 322121, 32213, 322121, 322122, 32213, 322291.
	Chemical and allied products	28 (except 2822, 2835, 2836, 2842, 2843, 2844, 2861, 2895, 2893, 2851, and 2879).	325 (except 325182, 32591, 32551, 32532).
	Petroleum refining and related industries.	2911, 2999	32411, 324199.
	Rubber and miscellaneous plastics products.	3011, 3069	326211, 31332, 326192, 326299.
	Stone, clay, glass, and concrete products.	3241	32731.
	Primary metal industries	3312, 3313, 3315, 3316, 3317, 3334, 3339, 3353, 3357.	324199, 331111, 331112, 331492, 331222, 332618, 331221, 22121, 331312, 331419, 331315, 331521, 331524, 331525.
	Fabricated metal products, except machinery and transportation equipment.	3421, 3499	332211, 337215, 332117, 332439, 33251, 332919, 339914, 332999.
	Industrial and commercial machinery and computer equipment.	3523, 3531	333111, 332323, 332212, 333922, 22651, 333923, 33312.
	Transportation equipment	3724, 3743, 3764	336412, 333911, 33651, 336416.
	Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks.	3861	333315, 325992.
	Electric, gas, and sanitary services	4911, 4931, 4939, 4961	221111, 221112, 221113, 221119, 221121, 221122, 22121, 22133.
	Educational services	8221	61131.
	Engineering, Accounting, Research, Management, and Related Services.	8731	54171.

Supporting Documentation

The final regulation is supported by two major documents:

1. *Economic Analysis of the Final Regulations Addressing Cooling Water Intake Structures for New Facilities* (EPA–821–R–01–035), hereafter referred to as the *Economic Analysis.* This document presents the analysis of compliance costs, barrier to entry, and energy supply effects. In addition, the document provides an assessment of potential benefits.

2. *Technical Development Document for the Final Regulations Addressing Cooling Water Intake Structures for New Facilities* (EPA–821–R–01–036), hereafter referred to as the *Technical Development Document.* This document presents detailed information on the methods used to develop unit costs and describes the set of technologies that may be used to meet the rule's requirements.

How To Obtain Supporting Documents

You can obtain the *Economic Analysis* and *Technical Development Document* from the Agency's 316(b) website (http://www.epa.gov/ost/316b). The documents are also available from the National Service Center for Environmental Publications, P.O. Box

42419, Cincinnati, OH 45242–2419; telephone (800) 490–9198 and the Water Resource Center , U.S. EPA, 1200 Pennsylvania Avenue, N.W. (RC 4100), Washington D.C. 20460 (202) 260–2814.

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I. Scope of This Rulemaking

Today's final rule establishes technology-based performance requirements applicable to the location, design, construction, and capacity of cooling water intake structures at new facilities under section 316(b) of the Clean Water Act. The rule establishes the best technology available for minimizing adverse environmental impact associated with the use of these structures. Today's final rule also partially fulfills EPA's obligation to comply with a consent decree entered in the United States District Court, Southern District of New York in *Riverkeeper Inc., et al.* v. *Whitman*, No. 93 Civ. 0314 (AGS). (For a more detailed discussion of the consent decree, see II.C.2).

This final rule applies to new greenfield or stand alone facilities: (1) that use a newly constructed cooling water intake structure, or a modified existing cooling water intake structure whose design capacity is increased that withdraws water from waters of the U.S.; and (2) that has or is required to have a National Pollutant Discharge Elimination System (NPDES) permit issued under section 402 of the CWA. Specifically, the rule applies to you if you are the owner or operator of a facility that meets all of the following criteria:

- Your greenfield or stand alone facility meets the definition of new facility specified in § 125.83 of this rule;
- Your new facility uses a newly constructed or modified existing cooling water intake structure or structures, or your facility obtains cooling water by any sort of contract or arrangement with an independent supplier who has a cooling water intake structure;
- Your new facility's cooling water intake structure(s) withdraw(s) water from waters of the U.S. and at least twenty-five (25) percent of the water withdrawn is used for contact or noncontact cooling purposes;
- Your new facility has a design intake flow of greater than two (2) million gallons per day (MGD); and
- Your new facility has an NPDES permit or is required to obtain one.

If a new facility meets these conditions, it is subject to today's final regulations. If a new facility has or requires an NPDES permit but does not meet the two MGD intake flow threshold or the twenty-five percent cooling water use threshold, it is not subject to permit conditions based on today's rule; rather, it is subject to permit conditions implementing section 316(b) of the CWA set by the permit director on a case-by-case basis, using best professional judgment.

A. What Is a New Facility?

A new facility subject to this regulation is any facility that meets the definition of ''new source'' or ''new discharger'' in 40 CFR 122.2 and 122.29(b)(1), (2), and (4); commences construction after January 17, 2002; and uses either a newly constructed cooling water intake structure, or an existing cooling water intake structure whose design capacity is increased; or obtains cooling water by any sort of contract or arrangement with an independent supplier who has a cooling water intake structure. The term ''commence construction'' is defined in 40 CFR 122.29(b)(4).

As stated above, this rule applies to only ''greenfield'' and ''stand-alone'' facilities. A greenfield facility is a facility that is constructed at a site at which no other source is located, or that totally replaces the process or production equipment at an existing facility (see 40 CFR 122.29(b)(1)(i) and (ii)). A stand-alone facility is a new, separate facility that is constructed on property where an existing facility is located and whose processes are substantially independent of the existing facility at the same site (see 40 CFR 122.29(b)(1)(iii)). An example of

total replacement is as follows: The power plant or manufacturer demolishes the power plant or manufacturing facility and builds a new plant or facility in its place. The pumps of the existing cooling water intake structure are replaced with new pumps that increase design capacity to accommodate additional cooling water needs, but the intake pipe is left in place. In this situation, the facility would be a new facility. Modifications to an existing cooling water intake structure that do not serve the cooling water needs of a greenfield or stand-alone facility in 40 CFR 122.2 and 122.29(b)(1), (2), and (4) (i.e., a facility that meets the definition of new source or new discharger and commences construction after the effective date of the rule) do not constitute a new facility subject to this rule. Thus, the definition of new facility under this rule is narrower than the definition of new source under section 306 of the CWA.

The definition of new facility also requires that the greenfield or stand-alone facility use ''a newly constructed cooling water intake structure or an existing cooling water intake structure whose design capacity is increased to accommodate the intake of additional cooling water.'' This means a facility that would otherwise be a ''new facility'' would *not* be treated as a new facility under this rule if it withdraws water from an existing cooling water intake structure whose design capacity has not been increased to accommodate the intake of additional cooling water. Routine maintenance and repair, such as replacement of pumps that does not increase the capacity of the structure, cleaning in response to biofouling, and repair or replacement of moving parts at a cooling water intake that is part of a greenfield or stand-alone facility, and that occur simply for operation and maintenance purposes, would not be a modification of that intake structure. One way to distinguish whether replacement of the pipes or the pumps is for maintenance and repair purposes or whether it is to accommodate construction of a new facility is to determine whether the replacement increases the original design capacity. Today's rule specifies that changes to a cooling water intake structure are considered modifications for purposes of this rule only if such changes result in an increase in design capacity. Thus, routine maintenance or repair of the cooling water intake structure, including the pumps, that does not result in an increase in design capacity does not modify a cooling water intake structure. However, if a change is made to the cooling water intake structure, including the pumps, that increases design capacity to any extent, then the cooling water intake structure has been modified; use of this structure by a greenfield or stand-alone facility would make the facility a new facility subject to this rule.

B. What Is a Cooling Water Intake Structure?

For the purposes of this rule a ''cooling water intake structure'' is defined as the total physical structure and any associated constructed waterways used to withdraw water from waters of the U.S. The cooling water intake structure extends from the point at which water is withdrawn from waters of the U.S. up to and including the intake pumps. EPA has defined ''cooling water'' as water used for contact or noncontact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content. The Agency has specified that the intended use of cooling water is to absorb waste heat from production processes or auxiliary operations. In addition, for the final rule EPA has amended the definition of cooling water to ensure that the rule does not discourage the reuse of cooling water as process water. As such, heated cooling water that is subsequently used in a manufacturing process is considered process water for the purposes of calculating the percentage of a new facility's intake flow that is used for cooling purposes.

C. What Cooling Water Use and Design Intake Flow Thresholds Result in a New Facility Being Subject to This Final Rule?

This rule applies to new facilities that (1) withdraw cooling water from waters of the U.S. and use at least twenty-five (25) percent of the water withdrawn for cooling purposes and (2) have a cooling water intake structure with a design intake capacity of greater than or equal to two (2) million gallons per day (MGD) of source water. See 40 CFR 125.81 of this rule. The percentage of total water withdrawn that is used for cooling purposes is to be measured on an average monthly basis over a period of one year. See 40 CFR 125.81(c) of this rule. A new facility meets the 25 percent cooling water use threshold if, on the basis of the new facility's design when measured over a period of one year, any monthly average percentage of cooling water withdrawn is expected to equal or exceed 25 percent of the total water withdrawn. Waters of the U.S. include the broad range of surface waters that meet the regulatory definition at 40 CFR 122.2, which can include lakes, ponds, reservoirs, nontidal rivers or streams, tidal rivers, estuaries, fjords, oceans, bays, and coves.

Some commenters questioned whether the discussion of cooling ponds in the preamble to the proposal (65 FR 49067, col. 2) meant that EPA considers cooling ponds to be ''waters of the United States.'' EPA did not intend that discussion to change the regulatory status of cooling ponds. Cooling ponds are neither categorically included nor categorically excluded from the definition of ''waters of the United States'' at 40 CFR 122.2. EPA interprets 40 CFR 122.2 to give permit writers discretion to regulate cooling ponds as ''waters of the United States'' where cooling ponds meet the definition of ''waters of the United States.'' The determination whether a particular cooling pond is or is not ''waters of the United States'' is to be made by the permit writer on a case-by-case basis, informed by the principles enunciated in *Solid Waste Agency of Northern Cook County* v. *US Army Corps of Engineers,* 531 U.S. 159 (2001).

D. Does This Rule Apply to My Facility If It Does Not Have a Point Source Discharge Subject to an NPDES Permit?

Today's final rule applies only to new facilities as defined in § 125.83 that have an NPDES permit or are required to obtain one because they discharge or might discharge pollutants, including storm water, from a point source to waters of the United States. Requirements for minimizing the adverse environmental impact of cooling water intake structures will continue to be applied through NPDES permits.

E. What Requirements Must I Meet Under the Final Rule?

Today's final rule establishes a two-track approach for regulating cooling water intake structures at new facilities. Track I establishes uniform requirements based on facility cooling water intake capacity. Track II provides dischargers with the opportunity to establish that alternative requirements will achieve comparable performance. The regulated entity has the opportunity to choose which track it will follow. The Track I and Track II requirements are summarized below.

Under Track I, new facilities with a design intake flow equal to or greater than 10 MGD, must meet the following requirements:

(1) Cooling water intake flow must be at a level commensurate with that achievable with a closed-cycle,

recirculating cooling system; (40 CFR 125.84(b)(1))

(2) Through-screen intake velocity must be less than or equal to 0.5 feet per second; (40 CFR 125.84(b)(2))

(3) Location- and capacity-based limits on proportional intake flow must be met (for fresh water rivers or streams, intake flow must be less than or equal to 5 percent of the mean annual flow; for lakes or reservoirs, intake flow may not disrupt natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies); for estuaries or tidal rivers, intake flow must be less than or equal to 1 percent of the tidal excursion volume; for oceans, there are no proportional flow requirements); (40 CFR 125.84(b)(3)) and

(4) Design and construction technologies for minimizing impingement mortality and entrainment must be selected and implemented if certain conditions exist where the cooling water intake structure is located. (40 CFR 125.84(b)(4) and (5))

Under Track I, new facilities with a design intake flow equal to or greater than 2 MGD, but less than 10 MGD, must meet the following requirements:

(1) Through-screen intake velocity must be less than or equal to 0.5 feet per second; (40 CFR 125.84(c)(1))

(2) Location- and capacity-based limits on proportional intake flow must be met (for fresh water rivers or streams, intake flow must be less than or equal to 5 percent of the mean annual flow; for lakes or reservoirs, intake flow may not disrupt natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies); for estuaries or tidal rivers, intake flow must be less than or equal to 1 percent of the tidal excursion volume; for oceans, there are no proportional flow requirements); (40 CFR 125.84(c)(2)) and

(3) Design and construction technologies for minimizing impingement mortality must be selected if certain conditions exist where the cooling water intake structure is located 125.84(c)(3); and design and construction technologies for minimizing entrainment must be selected and implemented. (40 CFR 125.84(c)(4))

Under Track II, new facilities must meet the following requirements:

(1) Employ technologies that will reduce the level of adverse environmental impact to a comparable level to that which would be achieved under the Track I requirements (as demonstrated in a Comprehensive Demonstration Study); (40 CFR 125.84(d)(1))

(2) The same proportional intake flow limitations as in Track I, based on the intake source water, must be met; (40 CFR 125.84(d)(2)).

Section IV.B and V. of this preamble provides a more detailed discussion of the requirements included under this two-track approach. The two-track approach provides new facilities with a well-defined set of requirements that constitute best technology available (BTA) for minimizing adverse environmental impact and can be implemented relatively quickly. This approach also provides flexibility to operators who believe alternative or emerging technologies would be just as effective at reducing impingement and entrainment.

II. Legal Authority, Purpose and Background of Today's Regulation

A. Legal Authority

Today's final rule is issued under the authority of sections 101, 301, 304, 306, 308, 316, 401, 402, 501, and 510 of the Clean Water Act (CWA), 33 U.S.C. 1251, 1311, 1314, 1316, 1318, 1326, 1341, 1342, 1361, and 1370. This rule partially fulfills the obligations of the U.S. Environmental Protection Agency (EPA) under a consent decree in *Riverkeeper Inc., et al.* v. *Whitman,* United States District Court, Southern District of New York, No. 93 Civ. 0314 (AGS).

B. Purpose of Today's Regulation

Section 316(b) of the CWA provides that any standard established pursuant to section 301 or 306 of the CWA and applicable to a point source must require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact. Today's final rule defines a cooling water intake structure as the total physical structure, including the pumps, and any associated constructed waterways used to withdraw water from waters of the U.S. Cooling water absorbs waste heat from processes employed or from auxiliary operations on a facility's premises. Single cooling water intake structures might have multiple intake bays. Today's final rule establishes requirements applicable to the location, design, construction, and capacity of cooling water intake structures at new facilities that withdraw at least two (2) million gallons per day (MGD) and use at least twenty-five (25) percent of the water they withdraw for cooling purposes. Today's final rule establishes best technology available for minimizing adverse environmental impact associated with the intake of water from waters of the U.S. at these structures. See part III for further discussion of the environmental impact associated with cooling water intake structures.

C. Background

1. The Clean Water Act

The Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), 33 U.S.C. 1251 *et seq.*, seeks to ''restore and maintain the chemical, physical, and biological integrity of the nation's waters.'' 33 U.S.C. 1251(a). The CWA establishes a comprehensive regulatory program, key elements of which are (1) a prohibition on the discharge of pollutants from point sources to waters of the U.S., except as authorized by the statute; (2) authority for EPA or authorized States or Tribes to issue National Pollutant Discharge Elimination System (NPDES) permits that regulate the discharge of pollutants; and (3) requirements for EPA to develop effluent limitation guidelines and standards and for States to develop water quality standards that are the basis for the limitations required in NPDES permits.

Today's final rule implements section 316(b) of the CWA as it applies to ''new facilities'' as defined in this rule. 316(b) addresses the adverse environmental impact caused by the intake of cooling water, not discharges into water. Despite this special focus, the requirements of section 316(b) are closely linked to several of the core elements of the NPDES permit program established under section 402 of the CWA to control discharges of pollutants into navigable waters. For example, section 316(b) applies to facilities that withdraw water from the waters of the United States for cooling through a cooling water intake structure and are point sources subject to an NPDES permit. Conditions implementing section 316(b) are included in NPDES permits and will continue to be included in NPDES permits under this final rule.

Section 301 of the CWA prohibits the discharge of any pollutant by any person, except in compliance with specified statutory requirements. These requirements include compliance with technology-based effluent limitation guidelines and new source performance standards, water quality standards,

NPDES permit requirements, and certain other requirements.

Section 402 of the CWA provides authority for EPA or an authorized State or Tribe to issue an NPDES permit to any person discharging any pollutant or combination of pollutants from a point source into waters of the U.S. Forty-four States and one U.S. territory are authorized under section 402(b) to administer the NPDES permitting program. NPDES permits restrict the types and amounts of pollutants, including heat, that may be discharged from various industrial, commercial, and other sources of wastewater. These permits control the discharge of pollutants primarily by requiring dischargers to meet effluent limitations and other permit conditions. Effluent limitations may be based on promulgated federal effluent limitation guidelines, new source performance standards, or the best professional judgment of the permit writer. Limitations based on these guidelines, standards, or best professional judgment are known as technology-based effluent limits. Where technology-based effluent limits are inadequate to ensure compliance with water quality standards applicable to the receiving water, more stringent effluent limits based on applicable water quality standards are required. NPDES permits also routinely include monitoring and reporting requirements, standard conditions, and special conditions.

Sections 301, 304, and 306 of the CWA require that EPA develop technology-based effluent limitation guidelines and new source performance standards that are used as the basis for technology-based minimum discharge requirements in wastewater discharge permits. EPA issues these effluent limitation guidelines and standards for categories of industrial dischargers based on the pollutants of concern discharged by the industry, the degree of control that can be attained using various levels of pollution control technology, consideration of various economic tests appropriate to each level of control, and other factors identified in sections 304 and 306 of the CWA (such as non-water quality environmental impacts including energy impacts). EPA has promulgated regulations setting effluent limitation guidelines and standards under sections 301, 304, and 306 of the CWA for more than 50 industries. See 40 CFR parts 405 through 471. Among these, EPA has established effluent limitation guidelines that apply to most of the industry categories that use cooling water intake structures (e.g., steam electric power generation, iron and steel manufacturing, pulp and paper manufacturing, petroleum refining, chemical manufacturing).

Section 306 of the CWA requires that EPA establish discharge standards for new sources. For purposes of section 306, new sources include any source that commenced construction after the promulgation of applicable new source performance standards, or after proposal of applicable standards of performance if the standards are promulgated in accordance with section 306 within 120 days of proposal. CWA section 306; 40 CFR 122.2. New source performance standards are similar to the technology-based limitations established for existing sources, except that new source performance standards are based on the best available demonstrated technology instead of the best available technology economically achievable. New facilities have the opportunity to install the best and most efficient production processes and wastewater treatment technologies. Therefore, Congress directed EPA to consider the best demonstrated process changes, in-plant controls, and end-of-process control and treatment technologies that reduce pollution to the maximum extent feasible. In addition, in establishing new source performance standards, EPA is required to take into consideration the cost of achieving the effluent reduction and any non-water quality environmental impacts and energy requirements. As stated above, a ''new source'' under CWA section 306 applies to a broader set of facilities than the group of facilities subject to this rule.

2. Consent Decree

Today's final rule partially fulfills EPA's obligation to comply with an amended Consent Decree entered in the United States District Court, Southern District of New York, in *Riverkeeper Inc., et al.* v. *Whitman,* No. 93 Civ 0314 (AGS), a case brought against EPA by a coalition of individuals and environmental groups. The consent decree as entered on October 10, 1995, provided that EPA propose regulations implementing section 316(b) by July 2, 1999, and take final action with respect to those regulation by August 13, 2001. Under subsequent orders and an amended consent decree, EPA has divided the rulemaking into three phases and is working under new deadlines. In addition to taking final action on this rule governing new facilities by November 9, 2001, EPA must propose regulations for, at a minimum, existing power plants that use large volumes of cooling water by February 28, 2002, and take final action 18 months later. EPA must propose regulations for, at a minimum, smaller-flow power plants and factories in four industrial sectors (pulp and paper making, petroleum and coal products manufacturing, chemical and allied manufacturing, and primary metal manufacturing) by June 15, 2003.

3. What Prior EPA Rulemakings Addressed Cooling Water Intake Structures?

In April 1976 EPA published a rule under section 316(b) that addressed cooling water intake structures. 41 *FR* 17387 (April 26, 1976), proposed at 38 *FR* 34410 (December 13, 1973). The rule added a new § 401.14 to 40 CFR Chapter I that reiterated the requirements of CWA section 316(b). It also added a new part 402, which included three sections: (1) § 402.10 (Applicability), (2) § 402.11 (Specialized definitions), and (3) § 402.12 (Best technology available for cooling water intake structures). Section 402.10 stated that the provisions of part 402 applied to ''cooling water intake structures for point sources for which effluent limitations are established pursuant to section 301 or standards of performance are established pursuant to section 306 of the Act.'' Section 402.11 defined the terms ''cooling water intake structure,'' ''location,'' ''design,'' ''construction,'' ''capacity,'' and ''Development Document.'' Section 402.12 included the following language:

The information contained in the Development Document shall be considered in determining whether the location, design, construction, and capacity of a cooling water intake structure of a point source subject to standards established under section 301 or 306 reflect the best technology available for minimizing adverse environmental impact.

In 1977, fifty-eight electric utility companies challenged these regulations, arguing that EPA had failed to comply with the requirements of the Administrative Procedure Act (APA) in promulgating the rule. Specifically, the utilities argued that EPA had neither published the development document in the **Federal Register** nor properly incorporated the document into the rule by reference. The United States Court of Appeals for the Fourth Circuit agreed and, without reaching the merits of the regulations themselves, remanded the rule. *Appalachian Power Co.* v. *Train*, 566 F.2d 451 (4th Cir. 1977). EPA later withdrew part 402. 44 *FR* 32956 (June 7, 1979). 40 CFR 401.14 remains in effect.

4. How Is Section 316(b) Being Implemented Now?

Since the Fourth Circuit remanded EPA's section 316(b) regulations in 1977, NPDES permit authorities have made decisions implementing section 316(b) on a case-by-case, site-specific basis. EPA published draft guidance addressing section 316(b) implementation in 1977. See *Draft Guidance for Evaluating the Adverse Impact of Cooling Water Intake Structures on the Aquatic Environment: Section 316(b) P.L. 92–500* (U.S. EPA, 1977). This draft guidance describes the studies recommended for evaluating the impact of cooling water intake structures on the aquatic environment and recommends a basis for determining the best technology available for minimizing adverse environmental impact. The 1977 section 316(b) draft guidance states, ''The environmental-intake interactions in question are highly site-specific and the decision as to best technology available for intake design, location, construction, and capacity must be made on a case-by-case basis.'' (Section 316(b) Draft Guidance, U.S. EPA, 1977, p. 4). This case-by-case approach also is consistent with the approach described in the 1976 development document referenced in the remanded regulation.

The 1977 section 316(b) draft guidance suggests the general process for developing information needed to support section 316(b) decisions and presenting that information to the permitting authority. The process involves the development of a site-specific study of the environmental effects associated with each facility that uses one or more cooling water intake structures, as well as consideration of that study by the permitting authority in determining whether the facility must make any changes for minimizing adverse environmental impact. Where adverse environmental impact is present, the 1977 draft guidance suggests a stepwise approach that considers screening systems, size, location, capacity, and other factors.

Although the draft guidance describes the information that should be developed, key factors that should be considered, and a process for supporting section 316(b) determinations, it does not establish national standards based on the best technology available for minimizing adverse environmental impact. Rather, the guidance leaves the decisions on the appropriate location, design, capacity, and construction of each facility to the permitting authority. Under this framework, the Director determines whether appropriate studies have been performed and whether a given facility has minimized adverse environmental impact. The Director's determinations of whether the appropriate studies have been performed or whether a given facility has minimized adverse environmental impact have often been subject to challenges that can take a long time to resolve and may impose significant resource demands on permitting agencies, the public, and the permit applicant.

5. Proposed New Facility Rule

On August 10, 2000, EPA published proposed requirements for cooling water intake structures at new facilities to implement section 316(b) of the Clean Water Act. EPA proposed a tiered approach for reducing adverse environmental impact, with three degrees of stringency based on EPA's view of the relative vulnerability of each category of waterbody. EPA received numerous comments and data submissions concerning the proposal. See 65 *FR* 49060.

6. Notice of Data Availability

On May 25, 2001, EPA published a Proposed Rule Notice of Data Availability (NODA). This notice presented a summary of the data EPA had received or collected since proposal, an assessment of the relevance of the data to EPA's analysis, some modified technology options suggested by commenters, and an alternative regulatory approach suggested by a trade group representing the utility industry as well as EPA's ideas about how it might modify this suggested approach. See 66 *FR* 28853. On July 6, 2001, EPA reopened the comment period for certain documents and issues related to those documents. See 66 *FR* 35572.

7. Public Participation

EPA has worked extensively with stakeholders from the industry, public interest groups, State agencies, and other Federal agencies in the development of this final rule. In addition to comments received during the comment periods of the original proposal, the NODA, and the reopened comment period for certain documents referenced in the NODA, EPA conducted two public meetings: in June 1998, in Arlington, Virginia (63 *FR* 27958) and in September, 1998, in Alexandria, Virginia (63 *FR* 40683). In addition, in September 1998, EPA staff participated in a technical workshop sponsored by the Electric Power Research Institute on issues relating to the definition and assessment of adverse environmental impact. EPA staff have participated in other industry conferences, met upon request on numerous occasions with industry representatives, and met on a number of occasions with representatives of environmental groups. EPA has also met with stakeholders, attended conferences and held workshops concerning topics related to the existing source rulemaking effort.

In the months leading up to publication of the proposed rule, EPA conducted a series of stakeholder meetings to review the draft regulatory framework for the proposed rule and invited stakeholders to provide their recommendations for the Agency's consideration. EPA managers have met with the Utility Water Act Group, Edison Electric Institute, representatives from an individual utility, and with representatives from the petroleum refining, pulp and paper, and iron and steel industries. EPA conducted meetings with environmental groups attended by representatives from between 3 and 15 organizations. EPA also met with the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) and, with the assistance of ASIWPCA, conducted a conference call in which representatives from 17 states or interstate organizations participated. After publication of the proposed rule, EPA continued to meet with stakeholders at their request. These meetings are summarized in the record.

III. Environmental Impact Associated With Cooling Water Intake Structures

The proposed rule provided an overview of the magnitude and type of environmental impacts associated with cooling water intake structures, including several illustrative examples of documented environmental impacts at existing facilities (see 65 *FR* 49071 through 4). The majority of biological impacts associated with intake structures are closely linked to water withdrawals from the various waters in which the intakes are located.

Based on preliminary estimates from a questionnaire sent to more than 1,200 existing power plants and factories, industrial facilities in the United States withdraw more than 279 billion gallons of cooling water a day from waters of the U.S. The withdrawal of such large quantities of cooling water affects vast quantities of aquatic organisms annually, including phytoplankton (tiny, free-floating photosynthetic organisms suspended in the water column), zooplankton (small aquatic animals, including fish eggs and larvae, that consume phytoplankton and other

zooplankton), fish, crustaceans, shellfish, and many other forms of aquatic life. Aquatic organisms drawn into cooling water intake structures are either impinged on components of the cooling water intake structure or entrained in the cooling water system itself.

Impingement takes place when organisms are trapped against intake screens by the force of the water passing through the cooling water intake structure. Impingement can result in starvation and exhaustion (organisms are trapped against an intake screen or other barrier at the entrance to the cooling water intake structure), asphyxiation (organisms are pressed against an intake screen or other barrier at the entrance to the cooling water intake structure by velocity forces that prevent proper gill movement, or organisms are removed from the water for prolonged periods of time), and descaling (fish lose scales when removed from an intake screen by a wash system) and other physical harms.

Entrainment occurs when organisms are drawn through the cooling water intake structure into the cooling system. Organisms that become entrained are normally relatively small benthic,[1] planktonic,[2] and nektonic[3] organisms, including early life stages of fish and shellfish. Many of these small organisms serve as prey for larger organisms that are found higher on the food chain. As entrained organisms pass through a plant's cooling system they are subject to mechanical, thermal, and/or toxic stress. Sources of such stress include physical impacts in the pumps and condenser tubing, pressure changes caused by diversion of the cooling water into the plant or by the hydraulic effects of the condensers, sheer stress, thermal shock in the condenser and discharge tunnel, and chemical toxemia induced by antifouling agents such as chlorine. The mortality rate of entrained organisms varies by species and can be high under normal operating conditions.[4] [5] In the case of either impingement or entrainment, a substantial number of aquatic organisms are killed or subjected to significant harm.

In addition to impingement and entrainment losses associated with the operation of the cooling water intake structure, EPA is concerned about the cumulative overall degradation of the aquatic environment as a consequence of (1) multiple intake structures operating in the same watershed or in the same or nearby reaches and (2) intakes located within or adjacent to an impaired waterbody. Historically, impacts related to cooling water intake structures have been evaluated on a facility-by-facility basis. The potential cumulative effects of multiple intakes located within a specific waterbody or along a coastal segment are largely unknown (one relevant example is provided for the Hudson River; see discussion below). There is concern, however, about the effects of multiple intakes on fishery stocks. As an example, the Atlantic States Marine Fisheries Commission has been requested by its member States to investigate the cumulative impacts on commercial fishery stocks, particularly overutilized stocks, attributable to cooling water intakes located in coastal regions of the Atlantic.[6] Specifically, the study will focus on revising existing fishery management models so that they accurately consider and account for fish losses from intake structures.

EPA analyses suggest that over 99 percent of the existing facilities with cooling water withdrawal that EPA surveyed in its section 316(b) survey of existing facilities are located within 2 miles of waters that are identified as impaired and listed by a State or Tribe as needing development of a total maximum daily load (TMDL) to restore the waterbody to its designated use. EPA notes that the top four leading causes of waterbody impairment (siltation, nutrients, bacteria, and metals) affect the aquatic life uses of a waterbody. The Agency believes that cooling water intakes potentially contribute additional stress to waters already showing aquatic life impairment from other sources such as industrial discharges and urban stormwater.

EPA is also concerned about the potential impacts of cooling water intake structures located in or near habitat areas that support threatened, endangered, or other protected species. Although limited information is available on locations of threatened or endangered species that are vulnerable to impingement or entrainment, such impacts do occur. For example, EPA is aware that from 1976 to 1994, approximately 3,200 threatened or endangered sea turtles entered enclosed cooling water intake canals at the St. Lucie Nuclear Generating Plant in Florida.[7] The plant developed a capture-and-release program in response to these events. Most of the entrapped turtles were captured and released alive; however, approximately 160 turtles did not survive. More recently, the number of sea turtles being drawn into the intake canal increased to approximately 600 per year; this increase led to a requirement for barrier nets to minimize entrapment.

Finally, in the proposed rule EPA expressed concern about environmental impacts associated with the construction of new cooling water intake structures. Three main factors contribute to the environmental impacts: displacement of biota and habitat resulting from the physical placement of a new cooling water intake structure in an aquatic environment, increased levels of turbidity in the aquatic environment, and effects on biota and habitat associated with aquatic disposal of materials excavated during construction. Existing programs, such as the CWA section 404 program, National Environmental Policy Act (NEPA) program, and programs under State/Tribal law, include requirements that address many of the environmental impact concerns associated with the construction of new intakes (see Section VII. G for applicable Federal statutes). EPA recognizes that impacts related to construction of cooling water intake structures can occur and defers to the regulatory authority provided within the above-listed programs to evaluate the potential for impacts and minimize their extent.

In the proposed rule and NODA, EPA provided a number of examples of impingement and entrainment impacts that can be associated with existing facilities. It is important to note that these examples were *not* meant to predict effects at new facilities but rather to illustrate that the number of organisms impinged and entrained by a facility can be substantial. EPA also

[1] Refers to bottom dwellers that are generally small and sessile (attached) such as mussels and anemones, but can include certain large motile (able to move) species such as crabs and shrimp. These species can be important members of the food chain.

[2] Refers to free-floating microscopic plants and animals, including the egg and larval stages of fish and invertebrates that have limited swimming abilities. Plankton are also an important source of food for other aquatic organisms and an essential component of the food chain in aquatic ecosystems.

[3] Refers to free-swimming organisms (e.g., fish, turtles, marine mammals) that move actively through the water column and against currents.

[4] Mayhew, D.A., L.D. Jensen, D.F. Hanson, and P.H. Muessig. 2000. A comparative review of entrainment survival studies at power plants in estuarine environments. *Environmental Science and Policy* 3:S295–S301.

[5] EPRI. 2000. Review of entrainment survival studies: 1970–2000. Prepared by EA Engineering Science and Technology for the Electric Power Research Institute, Palo Alto, CA.

[6] Personal communication, telephone conversation between D. Hart (EPA) and L. Kline (ASMFC), 2001.

[7] Florida Power and Light Company. 1995. Assessment of the impacts at the St. Lucie Nuclear Generating Plant on sea turtle species found in the inshore waters of Florida.

[8] EPA Region IV. 1979. Brunswick Nuclear Steam Electric Generating Plant of Carolina Power and Light Company, historical summary and review of section 316(b) issues.

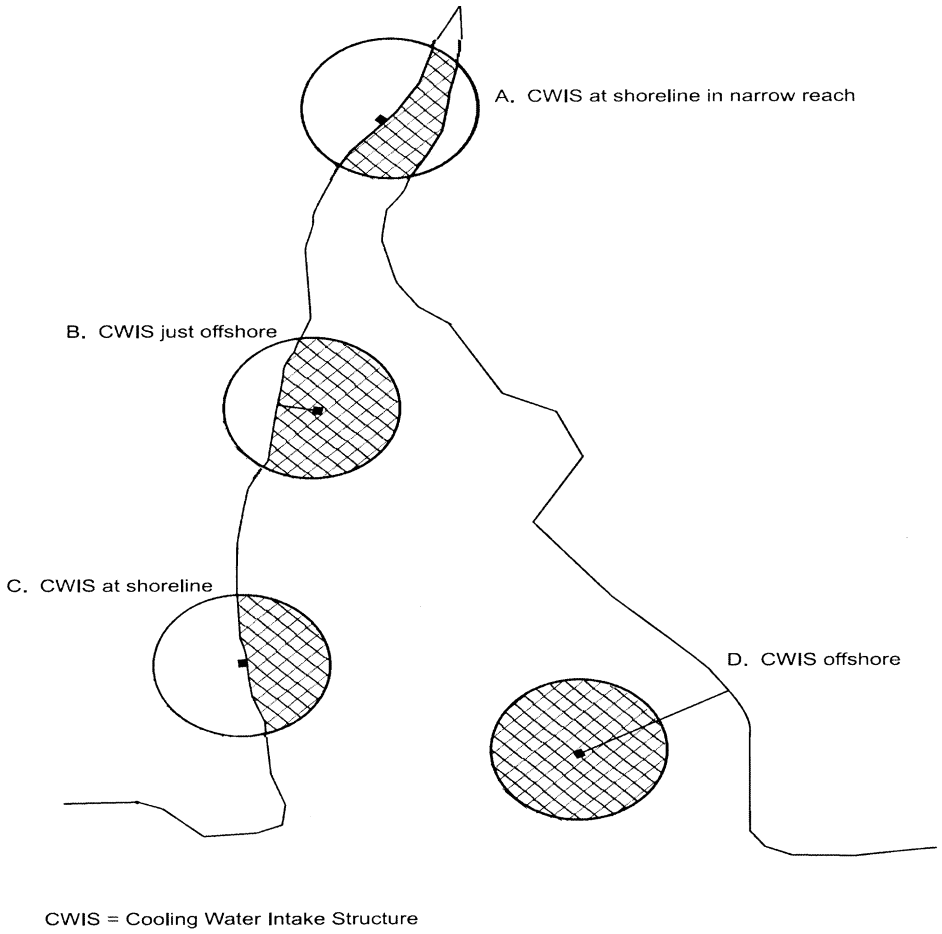
[9] EPA Region IV. 1986. Findings and determination under 33 U.S.C. 1326, In the Matter of Florida Power Corporation Crystal River Power Plant Units 1, 2, and 3, NPDES permit no. FL0000159.

[10] Thurber, N.J and D. J. Jude. 1985. Impingement losses at the D.C. Cook Nuclear Power Plant during 1975–1982 with a discussion of factors responsible and possible impact on local populations. Special report no. 115 of the Great Lakes Research Division, Great Lakes and Marine Waters Center, University of Michigan.

[11] EPA Region IV. 1979. Brunswick Nuclear Steam Electric Generating Plant of Carolina Power and Light Company, historical summary and review of section 316(b) issues.

[12] Boreman J. and P. Goodyear. 1988. Estimates of entrain.J a ecial

Appendix 3 to The Preamble—Examples of Areas and Volumes Defined in Estuaries or Tidal Rivers By The Tidal Excursion Distance



CWIS = Cooling Water Intake Structure

BILLING CODE 6560–50–C

For the reasons set forth in the preamble, chapter I of title 40 of the Code of Federal Regulations is amended as follows:

PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671, 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345 (d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

2. In § 9.1 the table is amended by adding entries in numerical order under the indicated heading to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation	OMB Control No.
* * * * *	
EPA Administered Permit Programs: The National Pollutant Discharge Elimination System	
* * * * *	
122.21(r)	2040–0241
* * * * *	
Criteria and Standards for the National Pollutant Discharge Elimination System	
* * * * *	
125.86	2040–0241
125.87	2040–0241
125.88	2040–0241
125.89	2040–0241
* * * * *	

PART 122—EPA ADMINISTERED PERMIT PROGRAMS: THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

1. The authority citation for part 122 continues to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et seq.*

2. Section 122.21 is amended by adding a new paragraph (r) to read as follows:

§ 122.21 Application for a permit (applicable to State programs, see § 123.25)

* * * * *

(r) *Applications for facilities with cooling water intake structures*—(1) *New facilities with new or modified cooling water intake structures.* New facilities with cooling water intake structures as defined in part 125, subpart I, of this chapter must report the information required under paragraphs (r)(2), (3), and (4) of this section and § 125.86 of this chapter. Requests for alternative requirements under § 125.85 of this chapter must be submitted with your permit application.

(2) *Source water physical data.* These include:

(i) A narrative description and scaled drawings showing the physical configuration of all source water bodies used by your facility, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports your determination of the water body type where each cooling water intake structure is located;

(ii) Identification and characterization of the source waterbody's hydrological and geomorphological features, as well as the methods you used to conduct any physical studies to determine your intake's area of influence within the waterbody and the results of such studies; and

(iii) Locational maps.

(3) *Cooling water intake structure data.* These include:

(i) A narrative description of the configuration of each of your cooling water intake structures and where it is located in the water body and in the water column;

(ii) Latitude and longitude in degrees, minutes, and seconds for each of your cooling water intake structures;

(iii) A narrative description of the operation of each of your cooling water intake structures, including design intake flows, daily hours of operation, number of days of the year in operation and seasonal changes, if applicable;

(iv) A flow distribution and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges; and

(v) Engineering drawings of the cooling water intake structure.

(4) *Source water baseline biological characterization data.* This information is required to characterize the biological community in the vicinity of the cooling water intake structure and to characterize the operation of the cooling water intake structures. The Director may also use this information in subsequent permit renewal proceedings to determine if your Design and Construction Technology Plan as required in § 125.86(b)(4) of this chapter should be revised. This supporting information must include existing data (if they are available). However, you may supplement the data using newly conducted field studies if you choose to do so. The information you submit must include:

(i) A list of the data in paragraphs (r)(4)(ii) through (vi) of this section that are not available and efforts made to identify sources of the data;

(ii) A list of species (or relevant taxa) for all life stages and their relative abundance in the vicinity of the cooling water intake structure;

(iii) Identification of the species and life stages that would be most susceptible to impingement and entrainment. Species evaluated should include the forage base as well as those most important in terms of significance to commercial and recreational fisheries;

(iv) Identification and evaluation of the primary period of reproduction, larval recruitment, and period of peak abundance for relevant taxa;

(v) Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the cooling water intake structure;

(vi) Identification of all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at your cooling water intake structures;

(vii) Documentation of any public participation or consultation with Federal or State agencies undertaken in development of the plan; and

(viii) If you supplement the information requested in paragraph (r)(4)(i) of this section with data collected using field studies, supporting documentation for the Source Water Baseline Biological Characterization must include a description of all methods and quality assurance procedures for sampling, and data analysis including a description of the study area; taxonomic identification of sampled and evaluated biological assemblages (including all life stages of fish and shellfish); and sampling and data analysis methods. The sampling and/or data analysis methods you use must be appropriate for a quantitative survey and based on consideration of methods used in other biological studies performed within the same source water body. The study area should include, at a minimum, the area of influence of the cooling water intake structure.

3. Section 122.44 is amended by adding paragraph (b)(3) to read as follows:

§ 122.44 Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs, see § 123.25).

* * * * *

(b) * * *

(3) Requirements applicable to cooling water intake structures at new facilities under section 316(b) of the CWA, in accordance with part 125, subpart I, of this chapter.

* * * * *

PART 123—STATE PROGRAM REQUIREMENTS

1. The authority citation for part 123 continues to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et seq.*

2. Section 123.25 is amended by revising paragraph (a)(36) to read as follows:

§ 123.25 Requirements for permitting.

(a) * * *

(36) Subparts A, B, D, H, and I of part 125 of this chapter;

* * * * *

PART 124—PROCEDURES FOR DECISIONMAKING

1. The authority citation for part 124 continues to read as follows:

Authority: Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.;* Safe Drinking Water Act, 42 U.S.C. 300f *et seq.;* Clean Water Act, 33 U.S.C. 1251 *et seq.;* Clean Air Act, 42 U.S.C. 7401 *et seq*.

2. Section 124.10 is amended by redesignating paragraph (d)(1)(ix) as paragraph (d)(1)(x) and adding a new paragraph (d)(1)(ix) to read as follows:

§ 124.10 Public notice of permit actions and public comment period.

* * * * *

(d) * * *

(1) * * *

(ix) Requirements applicable to cooling water intake structures at new facilities under section 316(b) of the CWA, in accordance with part 125, subpart I, of this chapter.

* * * * *

PART 125—CRITERIA AND STANDARDS FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

1. The authority citation for part 125 continues to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et seq.*, unless otherwise noted.

2. Remove the existing heading for subpart I and add new subpart I to part 125 to read as follows:

Subpart I—Requirements Applicable to Cooling Water Intake Structures for New Facilities Under Section 316(b) of the Act

Sec.

125.80 What are the purpose and scope of this subpart?
125.81 Who is subject to this subpart?
125.82 When must I comply with this subpart?
125.83 What special definitions apply to this subpart?
125.84 As an owner or operator of a new facility, what must I do to comply with this subpart?
125.85 May alternative requirements be authorized?
125.86 As an owner or operator of a new facility, what must I collect and submit when I apply for my new or reissued NPDES permit?
125.87 As an owner or operator of a new facility, must I perform monitoring?
125.88 As an owner or operator of a new facility, must I keep records and report?
125.89 As the Director, what must I do to comply with the requirements of this subpart?

Subpart I—Requirements Applicable to Cooling Water Intake Structures for New Facilities Under Section 316(b) of the Act

§ 125.80 What are the purpose and scope of this subpart?

(a) This subpart establishes requirements that apply to the location, design, construction, and capacity of cooling water intake structures at new facilities. The purpose of these requirements is to establish the best technology available for minimizing adverse environmental impact associated with the use of cooling water intake structures. These requirements are implemented through National Pollutant Discharge Elimination System (NPDES) permits issued under section 402 of the Clean Water Act (CWA).

(b) This subpart implements section 316(b) of the CWA for new facilities. Section 316(b) of the CWA provides that any standard established pursuant to sections 301 or 306 of the CWA and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.

(c) New facilities that do not meet the threshold requirements regarding amount of water withdrawn or percentage of water withdrawn for cooling water purposes in § 125.81(a) must meet requirements determined on a case-by-case, best professional judgement (BPJ) basis.

(d) Nothing in this subpart shall be construed to preclude or deny the right of any State or political subdivision of a State or any interstate agency under section 510 of the CWA to adopt or enforce any requirement with respect to control or abatement of pollution that is more stringent than those required by Federal law.

§ 125.81 Who is subject to this subpart?

(a) This subpart applies to a new facility if it:

(1) Is a point source that uses or proposes to use a cooling water intake structure;

(2) Has at least one cooling water intake structure that uses at least 25 percent of the water it withdraws for cooling purposes as specified in paragraph (c) of this section; and

(3) Has a design intake flow greater than two (2) million gallons per day (MGD).

(b) Use of a cooling water intake structure includes obtaining cooling water by any sort of contract or arrangement with an independent supplier (or multiple suppliers) of cooling water if the supplier or suppliers withdraw(s) water from waters of the United States. Use of cooling water does not include obtaining cooling water from a public water system or the use of treated effluent that otherwise would be discharged to a water of the U.S. This provision is intended to prevent circumvention of these requirements by creating arrangements to receive cooling water from an entity that is not itself a point source.

(c) The threshold requirement that at least 25 percent of water withdrawn be used for cooling purposes must be measured on an average monthly basis. A new facility meets the 25 percent cooling water threshold if, based on the new facility's design, any monthly average over a year for the percentage of cooling water withdrawn is expected to equal or exceed 25 percent of the total water withdrawn.

(d) This subpart does not apply to facilities that employ cooling water intake structures in the offshore and coastal subcategories of the oil and gas extraction point source category as defined under 40 CFR 435.10 and 40 CFR 435.40.

§ 125.82 When must I comply with this subpart?

You must comply with this subpart when an NPDES permit containing requirements consistent with this subpart is issued to you.

§ 125.83 What special definitions apply to this subpart?

The following special definitions apply to this subpart:

Annual mean flow means the average of daily flows over a calendar year.

Historical data (up to 10 years) must be used where available.

Closed-cycle recirculating system means a system designed, using minimized makeup and blowdown flows, to withdraw water from a natural or other water source to support contact and/or noncontact cooling uses within a facility. The water is usually sent to a cooling canal or channel, lake, pond, or tower to allow waste heat to be dissipated to the atmosphere and then is returned to the system. (Some facilities divert the waste heat to other process operations.) New source water (make-up water) is added to the system to replenish losses that have occurred due to blowdown, drift, and evaporation.

Cooling water means water used for contact or noncontact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content. The intended use of the cooling water is to absorb waste heat rejected from the process or processes used, or from auxiliary operations on the facility's premises. Cooling water that is used in a manufacturing process either before or after it is used for cooling is considered process water for the purposes of calculating the percentage of a new facility's intake flow that is used for cooling purposes in § 125.81(c).

Cooling water intake structure means the total physical structure and any associated constructed waterways used to withdraw cooling water from waters of the U.S. The cooling water intake structure extends from the point at which water is withdrawn from the surface water source up to, and including, the intake pumps.

Design intake flow means the value assigned (during the facility's design) to the total volume of water withdrawn from a source water body over a specific time period.

Design intake velocity means the value assigned (during the design of a cooling water intake structure) to the average speed at which intake water passes through the open area of the intake screen (or other device) against which organisms might be impinged or through which they might be entrained.

Entrainment means the incorporation of all life stages of fish and shellfish with intake water flow entering and passing through a cooling water intake structure and into a cooling water system.

Estuary means a semi-enclosed body of water that has a free connection with open seas and within which the seawater is measurably diluted with fresh water derived from land drainage. The salinity of an estuary exceeds 0.5 parts per thousand (by mass) but is typically less than 30 parts per thousand (by mass).

Existing facility means any facility that is not a new facility.

Freshwater river or stream means a lotic (free-flowing) system that does not receive significant inflows of water from oceans or bays due to tidal action. For the purposes of this rule, a flow-through reservoir with a retention time of 7 days or less will be considered a freshwater river or stream.

Hydraulic zone of influence means that portion of the source waterbody hydraulically affected by the cooling water intake structure withdrawal of water.

Impingement means the entrapment of all life stages of fish and shellfish on the outer part of an intake structure or against a screening device during periods of intake water withdrawal.

Lake or *reservoir* means any inland body of open water with some minimum surface area free of rooted vegetation and with an average hydraulic retention time of more than 7 days. Lakes or reservoirs might be natural water bodies or impounded streams, usually fresh, surrounded by land or by land and a man-made retainer (e.g., a dam). Lakes or reservoirs might be fed by rivers, streams, springs, and/or local precipitation. Flow-through reservoirs with an average hydraulic retention time of 7 days or less should be considered a freshwater river or stream.

Maximize means to increase to the greatest amount, extent, or degree reasonably possible.

Minimum ambient source water surface elevation means the elevation of the 7Q10 flow for freshwater streams or rivers; the conservation pool level for lakes or reservoirs; or the mean low tidal water level for estuaries or oceans. The 7Q10 flow is the lowest average 7 consecutive day low flow with an average frequency of one in 10 years determined hydrologically. The conservation pool is the minimum depth of water needed in a reservoir to ensure proper performance of the system relying upon the reservoir. The mean low tidal water level is the average height of the low water over at least 19 years.

Minimize means to reduce to the smallest amount, extent, or degree reasonably possible.

Natural thermal stratification means the naturally-occurring division of a waterbody into horizontal layers of differing densities as a result of variations in temperature at different depths.

New facility means any building, structure, facility, or installation that meets the definition of a ''new source'' or ''new discharger'' in 40 CFR 122.2 and 122.29(b)(1), (2), and (4) and is a greenfield or stand-alone facility; commences construction after January 17, 2002; and uses either a newly constructed cooling water intake structure, or an existing cooling water intake structure whose design capacity is increased to accommodate the intake of additional cooling water. New facilities include only ''greenfield'' and ''stand-alone'' facilities. A greenfield facility is a facility that is constructed at a site at which no other source is located, or that totally replaces the process or production equipment at an existing facility (*see* 40 CFR 122.29(b)(1)(i) and (ii)). A stand-alone facility is a new, separate facility that is constructed on property where an existing facility is located and whose processes are substantially independent of the existing facility at the same site (*see* 40 CFR 122.29(b)(1)(iii)). New facility does not include new units that are added to a facility for purposes of the same general industrial operation (for example, a new peaking unit at an electrical generating station).

(1) Examples of ''new facilities'' include, but are not limited to: the following scenarios:

(i) A new facility is constructed on a site that has never been used for industrial or commercial activity. It has a new cooling water intake structure for its own use.

(ii) A facility is demolished and another facility is constructed in its place. The newly-constructed facility uses the original facility's cooling water intake structure, but modifies it to increase the design capacity to accommodate the intake of additional cooling water.

(iii) A facility is constructed on the same property as an existing facility, but is a separate and independent industrial operation. The cooling water intake structure used by the original facility is modified by constructing a new intake bay for the use of the newly constructed facility or is otherwise modified to increase the intake capacity for the new facility.

(2) Examples of facilities that would not be considered a ''new facility'' include, but are not limited to, the following scenarios:

(i) A facility in commercial or industrial operation is modified and either continues to use its original cooling water intake structure or uses a new or modified cooling water intake structure.

(ii) A facility has an existing intake structure. Another facility (a separate and independent industrial operation),

is constructed on the same property and connects to the facility's cooling water intake structure behind the intake pumps, and the design capacity of the cooling water intake structure has not been increased. This facility would not be considered a ''new facility'' even if routine maintenance or repairs that do not increase the design capacity were performed on the intake structure.

Ocean means marine open coastal waters with a salinity greater than or equal to 30 parts per thousand (by mass).

*Source wate*r means the water body (waters of the U.S.) from which the cooling water is withdrawn.

Thermocline means the middle layer of a thermally stratified lake or reservoir. In this layer, there is a rapid decrease in temperatures.

Tidal excursion means the horizontal distance along the estuary or tidal river that a particle moves during one tidal cycle of ebb and flow.

Tidal river means the most seaward reach of a river or stream where the salinity is typically less than or equal to 0.5 parts per thousand (by mass) at a time of annual low flow and whose surface elevation responds to the effects of coastal lunar tides.

§ 125.84 As an owner or operator of a new facility, what must I do to comply with this subpart?

(a)(1) The owner or operator of a new facility must comply with either:

(i) Track I in paragraph (b) or (c) of this section; or

(ii) Track II in paragraph (d) of this section.

(2) In addition to meeting the requirements in paragraph (b), (c), or (d) of this section, the owner or operator of a new facility may be required to comply with paragraph (e) of this section.

(b) *Track I requirements for new facilities that withdraw equal to or greater than 10 MGD.* You must comply with all of the following requirements:

(1) You must reduce your intake flow, at a minimum, to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system;

(2) You must design and construct each cooling water intake structure at your facility to a maximum through-screen design intake velocity of 0.5 ft/s;

(3) You must design and construct your cooling water intake structure such that the total design intake flow from all cooling water intake structures at your facility meets the following requirements:

(i) For cooling water intake structures located in a freshwater river or stream, the total design intake flow must be no greater than five (5) percent of the source water annual mean flow;

(ii) For cooling water intake structures located in a lake or reservoir, the total design intake flow must not disrupt the natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies);

(iii) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level;

(4) You must select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish if:

(i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or

(ii) There are migratory and/or sport or commercial species of impingement concern to the Director or any fishery management agency(ies), which pass through the hydraulic zone of influence of the cooling water intake structure; or

(iii) It is determined by the Director or any fishery management agency(ies) that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(1), (2), and (3) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern;

(5) You must select and implement design and construction technologies or operational measures for minimizing entrainment of entrainable life stages of fish and shellfish if:

(i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or

(ii) There are or would be undesirable cumulative stressors affecting entrainable life stages of species of concern to the Director or any fishery management agency(ies), and it is determined by the Director or any fishery management agency(ies) that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(1), (2), and (3) of this section, would contribute unacceptable stress to these species of concern;

(6) You must submit the application information required in 40 CFR 122.21(r) and § 125.86(b);

(7) You must implement the monitoring requirements specified in § 125.87;

(8) You must implement the record-keeping requirements specified in § 125.88.

(c) *Track I requirements for new facilities that withdraw equal to or greater than 2 MGD and less than 10 MGD and that choose not to comply with paragraph (b) of this section.* You must comply with all the following requirements:

(1) You must design and construct each cooling water intake structure at your facility to a maximum through-screen design intake velocity of 0.5 ft/s;

(2) You must design and construct your cooling water intake structure such that the total design intake flow from all cooling water intake structures at your facility meets the following requirements:

(i) For cooling water intake structures located in a freshwater river or stream, the total design intake flow must be no greater than five (5) percent of the source water annual mean flow;

(ii) For cooling water intake structures located in a lake or reservoir, the total design intake flow must not disrupt the natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies);

(iii) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level;

(3) You must select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish if:

(i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or

(ii) There are migratory and/or sport or commercial species of impingement

concern to the Director or any fishery management agency(ies), which pass through the hydraulic zone of influence of the cooling water intake structure; or

(iii) It is determined by the Director or any fishery management agency(ies) that the proposed facility, after meeting the technology-based performance requirements in paragraphs (c)(1) and (2) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern;

(4) You must select and implement design and construction technologies or operational measures for minimizing entrainment of entrainable life stages of fish and shellfish;

(5) You must submit the application information required in 40 CFR 122.21(r) and § 125.86(b)(2), (3), and (4);

(6) You must implement the monitoring requirements specified in § 125.87;

(7) You must implement the recordkeeping requirements specified in § 125.88.

(d) *Track II.* The owner or operator of a new facility that chooses to comply under Track II must comply with the following requirements:

(1) You must demonstrate to the Director that the technologies employed will reduce the level of adverse environmental impact from your cooling water intake structures to a comparable level to that which you would achieve were you to implement the requirements of paragraphs (b)(1) and (2) of this section.

(i) Except as specified in paragraph (d)(1)(ii) of this section, this demonstration must include a showing that the impacts to fish and shellfish, including important forage and predator species, within the watershed will be comparable to those which would result if you were to implement the requirements of paragraphs (b)(1) and (2) of this section. This showing may include consideration of impacts other than impingement mortality and entrainment, including measures that will result in increases in fish and shellfish, but it must demonstrate comparable performance for species that the Director, in consultation with national, state or tribal fishery management agencies with responsibility for fisheries potentially affected by your cooling water intake structure, identifies as species of concern.

(ii) In cases where air emissions and/or energy impacts that would result from meeting the requirements of paragraphs (b)(1) and (2) of this section would result in significant adverse impacts on local air quality, significant adverse impact on local water resources not addressed under paragraph (d)(1)(i) of this section, or significant adverse impact on local energy markets, you may request alternative requirements under § 125.85.

(2) You must design and construct your cooling water intake structure such that the total design intake flow from all cooling water intake structures at your facility meet the following requirements:

(i) For cooling water intake structures located in a freshwater river or stream, the total design intake flow must be no greater than five (5) percent of the source water annual mean flow;

(ii) For cooling water intake structures located in a lake or reservoir, the total design intake flow must not disrupt the natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies);

(iii) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level.

(3) You must submit the application information required in 40 CFR 122.21(r) and § 125.86(c).

(4) You must implement the monitoring requirements specified in § 125.87.

(5) You must implement the record-keeping requirements specified in § 125.88.

(e) You must comply with any more stringent requirements relating to the location, design, construction, and capacity of a cooling water intake structure or monitoring requirements at a new facility that the Director deems are reasonably necessary to comply with any provision of state law, including compliance with applicable state water quality standards (including designated uses, criteria, and antidegradation requirements).

§ 125.85 May alternative requirements be authorized?

(a) Any interested person may request that alternative requirements less stringent than those specified in § 125.84(a) through (e) be imposed in the permit. The Director may establish alternative requirements less stringent than the requirements of § 125.84(a) through (e) only if:

(1) There is an applicable requirement under § 125.84(a) through (e);

(2) The Director determines that data specific to the facility indicate that compliance with the requirement at issue would result in compliance costs wholly out of proportion to those EPA considered in establishing the requirement at issue or would result in significant adverse impacts on local air quality, significant adverse impacts on local water resources not addressed under § 125.84(d)(1)(i), or significant adverse impacts on local energy markets;

(3) The alternative requirement requested is no less stringent than justified by the wholly out of proportion cost or the significant adverse impacts on local air quality, significant adverse impacts on local water resources not addressed under § 125.84(d)(1)(i), or significant adverse impacts on local energy markets; and

(4) The alternative requirement will ensure compliance with other applicable provisions of the Clean Water Act and any applicable requirement of state law.

(b) The burden is on the person requesting the alternative requirement to demonstrate that alternative requirements should be authorized.

§ 125.86 As an owner or operator of a new facility, what must I collect and submit when I apply for my new or reissued NPDES permit?

(a)(1) As an owner or operator of a new facility, you must submit to the Director a statement that you intend to comply with either:

(i) The Track I requirements for new facilities that withdraw equal to or greater than 10 MGD in § 125.84(b);

(ii) The Track I requirements for new facilities that withdraw equal to or greater than 2 MGD and less than 10 MGD in § 125.84(c);

(iii) The requirements for Track II in § 125.84 (d).

(2) You must also submit the application information required by 40 CFR 122.21(r) and the information required in either paragraph (b) of this section for Track I or paragraph (c) of this section for Track II when you apply for a new or reissued NPDES permit in accordance with 40 CFR 122.21.

(b) *Track I application requirements.* To demonstrate compliance with Track I requirements in § 125.84(b) or (c), you must collect and submit to the Director the information in paragraphs (b)(1) through (4) of this section.

(1) *Flow reduction information.* If you must comply with the flow reduction requirements in § 125.84(b)(1), you must submit the following information to the

Director to demonstrate that you have reduced your flow to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system:

(i) A narrative description of your system that has been designed to reduce your intake flow to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system and any engineering calculations, including documentation demonstrating that your make-up and blowdown flows have been minimized; and

(ii) If the flow reduction requirement is met entirely, or in part, by reusing or recycling water withdrawn for cooling purposes in subsequent industrial processes, you must provide documentation that the amount of cooling water that is not reused or recycled has been minimized.

(2) *Velocity information.* You must submit the following information to the Director to demonstrate that you are complying with the requirement to meet a maximum through-screen design intake velocity of no more than 0.5 ft/s at each cooling water intake structure as required in § 125.84(b)(2) and (c)(1):

(i) A narrative description of the design, structure, equipment, and operation used to meet the velocity requirement; and

(ii) Design calculations showing that the velocity requirement will be met at minimum ambient source water surface elevations (based on best professional judgement using available hydrological data) and maximum head loss across the screens or other device.

(3) *Source waterbody flow information.* You must submit to the Director the following information to demonstrate that your cooling water intake structure meets the flow requirements in § 125.84(b)(3) and (c)(2):

(i) If your cooling water intake structure is located in a freshwater river or stream, you must provide the annual mean flow and any supporting documentation and engineering calculations to show that your cooling water intake structure meets the flow requirements;

(ii) If your cooling water intake structure is located in an estuary or tidal river, you must provide the mean low water tidal excursion distance and any supporting documentation and engineering calculations to show that your cooling water intake structure facility meets the flow requirements; and

(iii) If your cooling water intake structure is located in a lake or reservoir, you must provide a narrative description of the water body thermal stratification, and any supporting documentation and engineering calculations to show that the natural thermal stratification and turnover pattern will not be disrupted by the total design intake flow. In cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish you must provide supporting documentation and include a written concurrence from any fisheries management agency(ies) with responsibility for fisheries potentially affected by your cooling water intake structure(s).

(4) *Design and Construction Technology Plan.* To comply with § 125.84(b)(4) and (5), or (c)(3) and (c)(4), you must submit to the Director the following information in a Design and Construction Technology Plan:

(i) Information to demonstrate whether or not you meet the criteria in § 125.84(b)(4) and (b)(5), or (c)(3) and (c)(4);

(ii) Delineation of the hydraulic zone of influence for your cooling water intake structure;

(iii) New facilities required to install design and construction technologies and/or operational measures must develop a plan explaining the technologies and measures you have selected based on information collected for the Source Water Biological Baseline Characterization required by 40 CFR 122.21(r)(3). (Examples of appropriate technologies include, but are not limited to, wedgewire screens, fine mesh screens, fish handling and return systems, barrier nets, aquatic filter barrier systems, etc. Examples of appropriate operational measures include, but are not limited to, seasonal shutdowns or reductions in flow, continuous operations of screens, etc.) The plan must contain the following information:

(A) A narrative description of the design and operation of the design and construction technologies, including fish-handling and return systems, that you will use to maximize the survival of those species expected to be most susceptible to impingement. Provide species-specific information that demonstrates the efficacy of the technology;

(B) A narrative description of the design and operation of the design and construction technologies that you will use to minimize entrainment of those species expected to be the most susceptible to entrainment. Provide species-specific information that demonstrates the efficacy of the technology; and

(C) Design calculations, drawings, and estimates to support the descriptions provided in paragraphs (b)(4)(iii)(A) and (B) of this section.

(c) *Application requirements for Track II.* If you have chosen to comply with the requirements of Track II in § 125.84(d) you must collect and submit the following information:

(1) *Source waterbody flow information.* You must submit to the Director the following information to demonstrate that your cooling water intake structure meets the source water body requirements in § 125.84(d)(2):

(i) If your cooling water intake structure is located in a freshwater river or stream, you must provide the annual mean flow and any supporting documentation and engineering calculations to show that your cooling water intake structure meets the flow requirements;

(ii) If your cooling water intake structure is located in an estuary or tidal river, you must provide the mean low water tidal excursion distance and any supporting documentation and engineering calculations to show that your cooling water intake structure facility meets the flow requirements; and

(iii) If your cooling water intake structure is located in a lake or reservoir, you must provide a narrative description of the water body thermal stratification, and any supporting documentation and engineering calculations to show that the natural thermal stratification and thermal or turnover pattern will not be disrupted by the total design intake flow. In cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish you must provide supporting documentation and include a written concurrence from any fisheries management agency(ies) with responsibility for fisheries potentially affected by your cooling water intake structure(s).

(2) *Track II Comprehensive Demonstration Study.* You must perform and submit the results of a Comprehensive Demonstration Study (Study). This information is required to characterize the source water baseline in the vicinity of the cooling water intake structure(s), characterize operation of the cooling water intake(s), and to confirm that the technology(ies) proposed and/or implemented at your cooling water intake structure reduce the impacts to fish and shellfish to levels comparable to those you would achieve were you to implement the requirements in § 125.84(b)(1)and (2) of Track I. To meet the ''comparable level''

requirement, you must demonstrate that:

(i) You have reduced both impingement mortality and entrainment of all life stages of fish and shellfish to 90 percent or greater of the reduction that would be achieved through § 125.84(b)(1) and (2); or

(ii) If your demonstration includes consideration of impacts other than impingement mortality and entrainment, that the measures taken will maintain the fish and shellfish in the waterbody at a substantially similar level to that which would be achieved through § 125.84(b)(1) and (2); and

(iii) You must develop and submit a plan to the Director containing a proposal for how information will be collected to support the study. The plan must include:

(A) A description of the proposed and/or implemented technology(ies) to be evaluated in the Study;

(B) A list and description of any historical studies characterizing the physical and biological conditions in the vicinity of the proposed or actual intakes and their relevancy to the proposed Study. If you propose to rely on existing source water body data, it must be no more than 5 years old, you must demonstrate that the existing data are sufficient to develop a scientifically valid estimate of potential impingement and entrainment impacts, and provide documentation showing that the data were collected using appropriate quality assurance/quality control procedures;

(C) Any public participation or consultation with Federal or State agencies undertaken in developing the plan; and

(D) A sampling plan for data that will be collected using actual field studies in the source water body. The sampling plan must document all methods and quality assurance procedures for sampling, and data analysis. The sampling and data analysis methods you propose must be appropriate for a quantitative survey and based on consideration of methods used in other studies performed in the source water body. The sampling plan must include a description of the study area (including the area of influence of the cooling water intake structure and at least 100 meters beyond); taxonomic identification of the sampled or evaluated biological assemblages (including all life stages of fish and shellfish); and sampling and data analysis methods; and

(iv) You must submit documentation of the results of the Study to the Director. Documentation of the results of the Study must include:

(A) *Source Water Biological Study.* The Source Water Biological Study must include:

(*1*) A taxonomic identification and characterization of aquatic biological resources including: a summary of historical and contemporary aquatic biological resources; determination and description of the target populations of concern (those species of fish and shellfish and all life stages that are most susceptible to impingement and entrainment); and a description of the abundance and temporal/spatial characterization of the target populations based on the collection of multiple years of data to capture the seasonal and daily activities (e.g., spawning, feeding and water column migration) of all life stages of fish and shellfish found in the vicinity of the cooling water intake structure;

(*2*) An identification of all threatened or endangered species that might be susceptible to impingement and entrainment by the proposed cooling water intake structure(s); and

(*3*) A description of additional chemical, water quality, and other anthropogenic stresses on the source waterbody.

(B) *Evaluation of potential cooling water intake structure effects.* This evaluation will include:

(*1*) Calculations of the reduction in impingement mortality and entrainment of all life stages of fish and shellfish that would need to be achieved by the technologies you have selected to implement to meet requirements under Track II. To do this, you must determine the reduction in impingement mortality and entrainment that would be achieved by implementing the requirements of § 125.84(b)(1) and (2) of Track I at your site.

(*2*) An engineering estimate of efficacy for the proposed and/or implemented technologies used to minimize impingement mortality and entrainment of all life stages of fish and shellfish and maximize survival of impinged life stages of fish and shellfish. You must demonstrate that the technologies reduce impingement mortality and entrainment of all life stages of fish and shellfish to a comparable level to that which you would achieve were you to implement the requirements in § 125.84(b)(1) and (2) of Track I. The efficacy projection must include a site-specific evaluation of technology(ies) suitability for reducing impingement mortality and entrainment based on the results of the Source Water Biological Study in paragraph (c)(2)(iv)(A) of this section. Efficacy estimates may be determined based on case studies that have been conducted in the vicinity of the cooling water intake structure and/or site-specific technology prototype studies.

(C) *Evaluation of proposed restoration measures.* If you propose to use restoration measures to maintain the fish and shellfish as allowed in § 125.84(d)(1)(i), you must provide the following information to the Director:

(*1*) Information and data to show that you have coordinated with the appropriate fishery management agency(ies); and

(*2*) A plan that provides a list of the measures you plan to implement and how you will demonstrate and continue to ensure that your restoration measures will maintain the fish and shellfish in the waterbody to a substantially similar level to that which would be achieved through § 125.84(b)(1) and (2).

(D) *Verification monitoring plan.* You must include in the Study the following:

(*1*) A plan to conduct, at a minimum, two years of monitoring to verify the full-scale performance of the proposed or implemented technologies, operational measures. The verification study must begin at the start of operations of the cooling water intake structure and continue for a sufficient period of time to demonstrate that the facility is reducing the level of impingement and entrainment to the level documented in paragraph (c)(2)(iv)(B) of this section. The plan must describe the frequency of monitoring and the parameters to be monitored. The Director will use the verification monitoring to confirm that you are meeting the level of impingement mortality and entrainment reduction required in § 125.84(d), and that the operation of the technology has been optimized.

(*2*) A plan to conduct monitoring to verify that the restoration measures will maintain the fish and shellfish in the waterbody to a substantially similar level as that which would be achieved through § 125.84(b)(1) and (2).

§ 125.87 As an owner or operator of a new facility, must I perform monitoring?

As an owner or operator of a new facility, you will be required to perform monitoring to demonstrate your compliance with the requirements specified in § 125.84.

(a) *Biological monitoring.* You must monitor both impingement and entrainment of the commercial, recreational, and forage base fish and shellfish species identified in either the Source Water Baseline Biological Characterization data required by 40 CFR 122.21(r)(3) or the Comprehensive Demonstration Study required by § 125.86(c)(2), depending on whether

you chose to comply with Track I or Track II. The monitoring methods used must be consistent with those used for the Source Water Baseline Biological Characterization data required in 40 CFR 122.21(r)(3) or the Comprehensive Demonstration Study required by § 125.86(c)(2). You must follow the monitoring frequencies identified below for at least two (2) years after the initial permit issuance. After that time, the Director may approve a request for less frequent sampling in the remaining years of the permit term and when the permit is reissued, if supporting data show that less frequent monitoring would still allow for the detection of any seasonal and daily variations in the species and numbers of individuals that are impinged or entrained.

(1) *Impingement sampling.* You must collect samples to monitor impingement rates (simple enumeration) for each species over a 24-hour period and no less than once per month when the cooling water intake structure is in operation.

(2) *Entrainment sampling.* You must collect samples to monitor entrainment rates (simple enumeration) for each species over a 24-hour period and no less than biweekly during the primary period of reproduction, larval recruitment, and peak abundance identified during the Source Water Baseline Biological Characterization required by 40 CFR 122.21(r)(3) or the Comprehensive Demonstration Study required in § 125.86(c)(2). You must collect samples only when the cooling water intake structure is in operation.

(b) *Velocity monitoring.* If your facility uses surface intake screen systems, you must monitor head loss across the screens and correlate the measured value with the design intake velocity. The head loss across the intake screen must be measured at the minimum ambient source water surface elevation (best professional judgment based on available hydrological data). The maximum head loss across the screen for each cooling water intake structure must be used to determine compliance with the velocity requirement in § 125.84(b)(2) or (c)(1). If your facility uses devices other than surface intake screens, you must monitor velocity at the point of entry through the device. You must monitor head loss or velocity during initial facility startup, and thereafter, at the frequency specified in your NPDES permit, but no less than once per quarter.

(c) *Visual or remote inspections.* You must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation. You must conduct visual inspections at least weekly to ensure that any design and construction technologies required in § 125.84(b)(4) and (5), or (c)(3) and (4) are maintained and operated to ensure that they will continue to function as designed. Alternatively, you must inspect via remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed.

§ 125.88 As an owner or operator of a new facility, must I keep records and report?

As an owner or operator of a new facility you are required to keep records and report information and data to the Director as follows:

(a) You must keep records of all the data used to complete the permit application and show compliance with the requirements, any supplemental information developed under § 125.86, and any compliance monitoring data submitted under § 125.87, for a period of at least three (3) years from the date of permit issuance. The Director may require that these records be kept for a longer period.

(b) You must provide the following to the Director in a yearly status report:

(1) Biological monitoring records for each cooling water intake structure as required by § 125.87(a);

(2) Velocity and head loss monitoring records for each cooling water intake structure as required by § 125.87(b); and

(3) Records of visual or remote inspections as required in § 125.87(c).

§ 125.89 As the Director, what must I do to comply with the requirements of this subpart?

(a) *Permit application.* As the Director, you must review materials submitted by the applicant under 40 CFR 122.21(r)(3) and § 125.86 at the time of the initial permit application and before each permit renewal or reissuance.

(1) After receiving the initial permit application from the owner or operator of a new facility, the Director must determine applicable standards in § 125.84 to apply to the new facility. In addition, the Director must review materials to determine compliance with the applicable standards.

(2) For each subsequent permit renewal, the Director must review the application materials and monitoring data to determine whether requirements, or additional requirements, for design and construction technologies or operational measures should be included in the permit.

(3) For Track II facilities, the Director may review the information collection proposal plan required by § 125.86(c)(2)(iii). The facility may initiate sampling and data collection activities prior to receiving comment from the Director.

(b) *Permitting requirements.* Section 316(b) requirements are implemented for a facility through an NPDES permit. As the Director, you must determine, based on the information submitted by the new facility in its permit application, the appropriate requirements and conditions to include in the permit based on the track (Track I or Track II) the new facility has chosen to comply with. The following requirements must be included in each permit:

(1) *Cooling water intake structure requirements.* At a minimum, the permit conditions must include the performance standards that implement the requirements of § 125.84(b)(1), (2), (3), (4) and (5); § 125.84(c)(1), (2), (3) and (4); or § 125.84(d)(1) and (2). In determining compliance with proportional flow requirement in §§ 125.84(b)(3)(ii); (c)(2)(ii); and (d)(2)(ii), the director must consider anthropogenic factors (those not considered ''natural'') unrelated to the new facility's cooling water intake structure that can influence the occurrence and location of a thermocline. These include source water inflows, other water withdrawals, managed water uses, wastewater discharges, and flow/level management practices (e.g., some reservoirs release water from below the surface, close to the deepest areas).

(i) For a facility that chooses Track I, you must review the Design and Construction Technology Plan required in § 125.86(b)(4) to evaluate the suitability and feasibility of the technology proposed to minimize impingement mortality and entrainment of all life stages of fish and shellfish. In the first permit issued, you must put a condition requiring the facility to reduce impingement mortality and entrainment commensurate with the implementation of the technologies in the permit. Under subsequent permits, the Director must review the performance of the technologies implemented and require additional or different design and construction technologies, if needed to minimize impingement mortality and entrainment of all life stages of fish and shellfish. In addition, you must consider whether more stringent conditions are reasonably necessary in accordance with § 125.84(e).

(ii) For a facility that chooses Track II, you must review the information submitted with the Comprehensive

Demonstration Study information required in § 125.86(c)(2), evaluate the suitability of the proposed design and construction technologies and operational measures to determine whether they will reduce both impingement mortality and entrainment of all life stages of fish and shellfish to 90 percent or greater of the reduction that could be achieved through Track I. If you determine that restoration measures are appropriate at the new facility for consideration of impacts other than impingement mortality and entrainment, you must review the Evaluation of Proposed Restoration Measures and evaluate whether the proposed measures will maintain the fish and shellfish in the waterbody at a substantially similar level to that which would be achieved through § 125.84(b)(1) and (2). In addition, you must review the Verification Monitoring Plan in § 125.86(c)(2)(iv)(D) and require that the proposed monitoring begin at the start of operations of the cooling water intake structure and continue for a sufficient period of time to demonstrate that the technologies, operational measures and restoration measures meet the requirements in § 125.84(d)(1). Under subsequent permits, the Director must review the performance of the additional and /or different technologies or measures used and determine that they reduce the level of adverse environmental impact from the cooling water intake structures to a comparable level that the facility would achieve were it to implement the requirements of § 125.84(b)(1) and (2).

(2) *Monitoring conditions.* At a minimum, the permit must require the permittee to perform the monitoring required in § 125.87. You may modify the monitoring program when the permit is reissued and during the term of the permit based on changes in physical or biological conditions in the vicinity of the cooling water intake structure. The Director may require continued monitoring based on the results of the Verification Monitoring Plan in § 125.86(c)(2)(iv)(D).

(3) *Record keeping and reporting.* At a minimum, the permit must require the permittee to report and keep records as required by § 125.88.

[FR Doc. 01–28968 Filed 12–17–01; 8:45 am]

BILLING CODE 6560–50–P

3. § 401.35 is amended by: removing the word ''and'' after the semicolon in paragraph (a); removing the period after paragraph (b) and replacing it with a semicolon; and adding two new paragraphs (c) and (d) to read as follows:

§ 401.35 Navigation underway.

* * * * *

(c) Man the wheelhouse of the vessel at all times by either the master or certified deck officer and by another qualified crewmember; and

(d) Have sufficient well rested crewmembers available for mooring operations and other essential duties.

Issued at Washington, DC on June 16, 2003.

Albert S. Jacquez,

Administrator, Saint Lawrence Seaway Development Corporation.

[FR Doc. 03–15537 Filed 6–18–03; 8:45 am]

BILLING CODE 4910–61–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 125

[FRL–7514–9]

RIN 2040–AD85

National Pollutant Discharge Elimination System—Amendment of Final Regulations Addressing Cooling Water Intake Structures for New Facilities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Today's final rule makes minor changes to EPA's final rule published December 18, 2001, implementing section 316(b) of the Clean Water Act (CWA) for new facilities that use water withdrawn from rivers, streams, lakes, reservoirs, estuaries, oceans or other waters of the United States for cooling. The December 2001 rule instituted national technology-based performance requirements applicable to the location, design, construction, and capacity of cooling water intake structures at new facilities. These national requirements establish the best technology available for minimizing adverse environmental impact associated with the use of these structures. EPA is making several minor changes to the December 2001 rule because, in several instances, the final rule text does not reflect the Agency's intent.

DATES: This final rule is effective on July 21, 2003. For judicial review purposes, this final rule is promulgated as of 1 p.m. Eastern Standard Time (EST) on July 3, 2003, as provided in 40 CFR 23.2 and 23.7.

FOR FURTHER INFORMATION CONTACT: Martha Segall, USEPA Office of Water by phone at (202) 566–1041 or by e-mail at *rule.316b@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Regulated Entities

This final rule applies to new greenfield and stand-alone facilities that use cooling water intake structures to withdraw water from waters of the U.S. and that have or require a National Pollutant Discharge Elimination System (NPDES) permit issued under section 402 of the CWA. New facilities subject to this regulation include those that have a design intake flow of greater than two (2) million gallons per day (MGD) and that use at least twenty-five (25) percent of water withdrawn for cooling purposes. Today's rule does not apply to existing facilities, major modifications to existing facilities that would be ''new sources'' under 40 CFR 129.29(b) as that term is used in the effluent guidelines and standards program, or facilities that employ cooling water intake structures in the offshore oil and gas extraction point source category as defined under 40 CFR 435.10 and 40 CFR 435.40.

The following table is not intended to be exhaustive; rather, it provides a guide for readers regarding entities likely to be regulated by this action. The table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by this action, you should carefully examine the applicability criteria at 40 CFR 125.81. If you have questions about the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Category	Examples of regulated entities	Standard industrial classification codes	North American Industry Codes (NAIC)
Federal, State and Local Government.	Operators of steam electric generating point source dischargers that employ cooling water intake structures.	4911 and 493	221111, 221112, 221113, 221119, 221121, 221122, 221111, 221112, 221113, 221119, 221121, 221122
Industry	Operators of industrial point source dischargers that employ cooling water intake structures.	See below	See below
	Steam electric generating	4911 and 493	221111, 221112, 221113, 221119, 221121, 221122, 221111, 221112, 221113, 221119, 221121, 221122
	Agricultural production	0133	111991, 11193
	Metal mining	1011	21221
	Oil and gas extraction (Excluding offshore and coastal subcategories).	1311, 1321	211111, 211112
	Mining and quarrying of nonmetallic minerals	1474	212391
	Food and kindred products	2046, 2061, 2062, 2063, 2075, 2085.	311221, 311311, 311312, 311313, 311222, 311225, 31214
	Tobacco products	2141	312229, 31221
	Textile mill products	2211	31321

Category	Examples of regulated entities	Standard industrial classification codes	North American Industry Codes (NAIC)
	Lumber and wood products, except furniture	2415, 2421, 2436, 2493.	321912, 321113, 321918, 321999, 321212, 321219
	Paper and allied products	2611, 2621, 2631, 2676.	3221, 322121, 32213, 322121, 322122, 32213, 322291
	Chemical and allied products	28 (except 2895, 2893, 2851, and 2879).	325 (except 325182, 32591, 32551, 32532)
	Petroleum refining and related industries	2911, 2999	32411, 324199
	Rubber and miscellaneous plastics products	3011, 3069	326211, 31332, 326192, 326299
	Stone, clay, glass, and concrete products	3241	32731
	Primary metal industries	3312, 3313, 3315, 3316, 3317, 3334, 3339, 3353, 3363, 3365, 3366.	324199, 331111, 331112, 331492, 331222, 332618, 331221, 22121, 331312, 331419, 331315, 331521, 331524, 331525
	Fabricated metal products, except machinery and transportation equipment.	3421, 3499	332211, 337215, 332117, 332439, 33251, 332919, 339914, 332999
	Industrial and commercial machinery and computer equipment	3523, 3531	333111, 332323, 332212, 333922, 22651, 333923, 33312
	Transportation equipment	3724, 3743, 3764	336412, 333911, 33651, 336416
	Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks.	3861	333315, 325992
	Electric, gas, and sanitary services	4911, 4931, 4939, 4961.	221111, 221112, 221113, 221119, 221121, 221122, 22121, 22133
	Educational services	8221	61131
	Engineering, accounting, research, management and related services.	8731	54171

B. How Can I Get Copies of This Document and Other Related Information?

1. *Docket.* EPA has established an official public docket for this action under Docket ID No. OW–2002–0052. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Water Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Water Docket is (202) 566–2426.

2. *Electronic Access.* You may access this **Federal Register** document electronically through the EPA Internet under the ''**Federal Register**'' listings at *http://www.epa.gov/fedrgstr/.*

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

II. Legal Authority, Purpose, and Scope of Today's Final Rule

On December 18, 2001, EPA published a final rule implementing section 316(b) of the Clean Water Act for new facilities that use water withdrawn from rivers, streams, lakes, reservoirs, estuaries, oceans or other waters of the United States for cooling purposes. EPA reviewed the final rule text and believes that the regulatory language did not correctly reflect EPA's intent with respect to three issues. On December 26, 2002, EPA published a direct final rule (67 FR 78948) amending the text of the December 2001 final rule. EPA published a companion proposed rule on the same day as the direct final rule (67 FR 78956). The proposed rule invited comment on the substance of the direct final rule. The proposed rule stated that if EPA received adverse comment by January 27, 2003, the direct final rule would not take effect and EPA would publish a notice in the **Federal Register** withdrawing the direct final rule before the March 26, 2003, effective

date. EPA subsequently received adverse comment on the direct final rule, and withdrew the direct final rule on March 19, 2003 (68 FR 14164). Today's rulemaking constitutes EPA's final action on the proposed rule. With this final action, EPA is addressing and responding to the adverse comments received on the proposed rule and the direct final rule.

The legal authority, background, and basis for the December 2001 rule are discussed in the **Federal Register** notice of rulemaking (66 FR 65256, December 18, 2001). EPA often refers to the final rule implementing section 316(b) for new facilities as the ''Phase I rule.'' This term is used to avoid confusion with other phases of the section 316(b) rulemaking that mainly cover existing facilities.

III. Summary of the Final Rule

This rule makes minor changes to the regulations at 40 CFR 125.80, National Pollutant Discharge Elimination System: Regulations Addressing Cooling Water Intake Structures for New Facilities published on December 18, 2001 (66 FR 65256). The changes will clarify three technical issues on velocity monitoring, authority to require additional design and construction technologies, and procedures governing requests for less stringent alternative requirements.

A. Velocity Monitoring

The first revision to the regulatory text relates to velocity monitoring. In the final rule for cooling water intake structures at new facilities, EPA required that velocity be monitored at cooling water intake structures at least once per quarter. In monitoring velocity, facilities that employ surface intake screens are required to monitor head loss across the intake screens at the ''minimum ambient source water surface elevation.'' EPA qualified that language in the requirement by adding a parenthetical phrase that would allow the minimum ambient source water surface elevation to be determined using the Director's best professional judgment based on available hydrological data. *See* 40 CFR 125.87(b). However, EPA also defined ''minimum ambient source water surface elevation'' at 40 CFR 125.83 to mean ''the elevation of the 7Q10 flow for freshwater streams or rivers; the conservation pool level for lakes or reservoirs; or the mean low tidal water level for estuaries or oceans.'' EPA further defined each of these low flows in terms of a temporal and hydrological basis. *See* 66 FR 65339, December 18, 2001.

EPA understands that ambient source water surface elevations fluctuate through time, and it would be difficult, if not infeasible, to coordinate the measurements of head loss to the time when these minimum ambient source water surface elevations were occurring in the waterbody. It was EPA's intent that the velocity be measured at a time that is predicted, based on knowledge of the hydrology of the waterbody, to be a time of reasonable low flow representative of the low surface elevations that might occur during the months that comprise each quarter. For example, in tidal waters the velocity measurement should be taken at a low tide. If tide tables and/or other records indicate that the surface elevations in a particular month are typically lower than in other months, the facility should measure intake velocity at one of the lowest predicted tides during that particular month. In reservoirs where water levels are drawn down at certain parts of the year, the facility should measure intake velocity immediately after a drawdown or release has occurred. In freshwater rivers and streams, the facility should measure intake velocity during the month that typically has the lowest flows. Such monitoring should occur at a time when flows are not temporarily elevated due to recent storm events. The Director should determine and specify the appropriate time of measurement in the facility's NPDES permit based on available existing hydrological information and information submitted by the owner of the facility with its permit application. Accordingly, to conform the regulatory text to EPA's intent, EPA believes that the regulatory language at 40 CFR 125.87 is sufficient and that the definition of ''minimum ambient source water surface elevation'' is no longer needed. Therefore, today's action will only delete the definition of ''minimum ambient source water surface elevation'' at 40 CFR 125.83.

B. Director's Authority to Require Additional Design and Construction Technologies or Operational Measures in Track I

The second set of revisions to the regulatory text relates to the Director's authority to require additional design and construction technologies or operational measures in Track I. There are five provisions at issue: 40 CFR 125.84(b)(4)(ii), (b)(4)(iii), (b)(5)(ii), (c)(3)(ii), and (c)(3)(iii). Four of these provisions specify circumstances where design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish are required. At 40 CFR 125.84(b)(4)(ii) and (c)(3)(ii), facilities are required to select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish if ''There are migratory and/or sport or commercial species of impingement concern to the Director or any fishery management agency(ies), which pass through the hydraulic zone of influence of the cooling water intake structure.'' The language should have specified that additional design and construction technologies or operational measures are required if, ''Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the cooling water intake structure.'' Paragraphs (b)(4)(iii) and (c)(3)(iii) require a facility to select and implement design and construction technologies or operational measures for minimizing impingement mortality if ''It is determined by the Director or any fishery management agency(ies) * * *.'' The language should have specified that those technologies are required if, ''It is determined by the Director, based on information submitted by any fishery management agency(ies) or other relevant information, that * * *.'' The fifth provision, paragraph (b)(5)(ii), addresses circumstances where design and construction technologies or operational measures are required for minimizing entrainment of entrainable life stages of fish and shellfish. The language used in this provision was similar to that in paragraphs (b)(4)(ii), (b)(4)(iii), (c)(3)(ii), and (c)(3)(iii) and therefore required similar corrections.

All of these revisions are necessary because the decision of what to require under section 316(b) of the CWA belongs to the Director. Although EPA did not intend to delegate the decisionmaking to another agency, the Director may obtain information from another agency to make a decision. Therefore, today's action amends the requirements at 40 CFR 125.84(b)(4)(ii), (b)(4)(iii), (b)(5)(ii), (c)(3)(ii), and (c)(3)(iii) to reflect the intent that the information of another agency informs the decision of the Director.

C. Deletion of Inappropriate Cross Reference in the Alternative Requirements Section

The third issue relates to drafting errors in the alternative requirements section of the rule. The regulation at 40 CFR 125.85 in paragraphs (a)(2) and (3) currently refers to local water resources ''not addressed under § 125.84(d)(1)(i)'' intending to refer to local water resource issues other than impingement or

entrainment. Cross-referencing this other section of the regulations is not technically correct, because subsection (d) of § 125.84 is part of Track II while the alternative requirements provision applies to either Track I or Track II. Therefore, this action deletes the reference to 40 CFR 125.84(d)(1)(i) and substitutes language referencing ''significant adverse impacts on local water resources other than impingement or entrainment.'' Similarly, to eliminate any uncertainty regarding applicability of the alternative requirements provision at 40 CFR 125.85 to the Track II performance requirements at 40 CFR 125.84(d), this action deletes 40 CFR 125.84(d)(1)(ii) because it is unnecessary and confusing. In addition, the paragraph 40 CFR 125.84(d)(1) and the subparagraph (d)(1)(i) have been combined with some modifications because a separate subparagraph is no longer needed.

IV. Response to Comments

EPA received one set of comments on the direct final and companion proposed rules published on December 26, 2002, (67 FR 78948 and 78956) from Riverkeeper, Inc. on behalf of 16 environmental organizations. This group of environmental organizations are petitioners in a suit filed against EPA in the U.S. Court of Appeals in the Second Circuit (Case No. 02–4005) challenging EPA's final Phase I rule for new facilities. Riverkeeper, *et al.* submitted as their comments the brief that they filed in their challenge to the December 18, 2001, Phase I final regulations (Brief for the Environmental Petitioners, December 4, 2002). Riverkeeper *et al.*'s comments did not specifically object to the technical changes in the direct final rule; rather, they objected to the underlying provisions in the final Phase I rule that are related to the technical corrections. Riverkeeper *et al.* filed their brief to preserve their ability to have the objectionable provisions remanded to EPA should they succeed in their challenge of the Phase I rule. EPA also understands that Riverkeeper *et al.* intend to consolidate any petition for review of this rule with the pending litigation in the Second Circuit. EPA believes it responded to Riverkeeper *et al.*'s comments articulated in their brief in EPA's brief filed in the Second Circuit on April 4, 2003, and in the record for the Phase I rule. Thus, EPA includes in the record for this rule the brief it filed in the Second Circuit in the Phase I litigation, all other briefs filed in that litigation, and the entire public record on the National Pollutant Discharge Elimination System: Regulations Addressing Cooling Water Intake Structures for New Facilities, Final Rule (Docket ID W–00–03).

V. Statutory and Executive Orders Reviews

A. Executive Order 12866: Regulatory Planning and Review

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

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector or the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

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

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* This rule merely makes three minor technical revisions to the December 2001 Phase I final regulations for cooling water intake structures. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent alternative requirements. It would affect the same facilities as the December 2001 rule, impose no additional costs or result in additional benefits beyond those already projected, and would not reduce the level of environmental protection projected.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

C. Regulatory Flexibility Act (RFA)

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business based on the Small Business Administration's size standards; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impact of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This final rule does not substantively change the December 18, 2001, final rule for new facilities (66 FR 65256), nor does it impose a significant economic impact on a substantial number of small entities. This rule merely makes three minor technical revisions to the December 2001 rule. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent

alternative requirements. It would affect the same facilities as the December 2001 rule, impose no additional costs or result in additional benefits beyond those already projected, and would not reduce the level of environmental protection projected.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector, in any one year. This rule merely makes three minor technical revisions to the December 2001 Phase I final regulations for cooling water intake structures. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent alternative requirements. It would affect the same facilities as the December 2001 rule, would have no additional costs or benefits beyond those already projected, and would not reduce the level of environmental protection projected. Thus, today's rule is not subject to the requirements of section 202 and 205 of the UMRA. For the same reasons, EPA has also determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. Thus, today's rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule merely makes three minor technical revisions to the December 2001 Phase I final regulations for new facilities. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent alternative requirements. It would affect the same facilities as the December 2001 rule, impose no additional costs or result in additional benefits beyond those already projected, and would not reduce the level of environmental protection projected. Thus Executive Order 13132 does not apply to this rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications.'' ''Policies that have Tribal implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian Tribes, on the relationship between the Federal government and the Indian Tribes, or on the distribution of power and responsibilities between the Federal government and Indian Tribes.''

This final rule does not have Tribal implications. It will not have substantial direct effects on Tribal governments, on the relationship between the Federal government and Indian Tribes, or on the distribution of power and responsibilities between the Federal government and Indian Tribes, as specified in Executive Order 13175. This rule merely makes three minor technical revisions to the final regulations for cooling water intake structures. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent alternative requirements. It would affect the same facilities as the December 2001 rule, impose no additional costs or result in additional benefits beyond those already projected, and would not reduce the level of environmental protection projected. This rule will not affect Tribes in any way in the foreseeable future. Thus, Executive Order 13175 does not apply to this rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe might have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency. This final rule is not economically significant as defined under Executive Order 12866 and does not concern an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. This rule merely

makes three minor technical revisions to the final regulations for cooling water intake structures. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent alternative requirements. It would affect the same facilities as the December 2001 rule, impose no additional costs or result in the additional benefits beyond those already projected, and would not reduce the level of environmental protection projected. Therefore, it is not subject to Executive Order 13045.

H. Executive Order 13211 (Energy Effects)

This final rule is not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (''NTTAA'') of 1995 (Public Law 104–113, Section12(d), 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This final rule does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 requires that, to the greatest extent practicable and permitted by law, each Federal agency must make achieving environmental justice part of its mission. Executive Order 12898 provides that each Federal agency must conduct its programs, policies, and activities that substantially affect human health or the environment in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under such programs, policies, and activities because of their race, color, or national origin.

EPA does not expect that this final rule would have an exclusionary effect, deny persons the benefit of the NPDES program or subject persons to discrimination because of their race, color, or national origin. This rule merely makes three minor technical revisions to the final regulations for cooling water intake structures. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent alternative requirements. It would affect the same facilities as the December 2001 rule, would have no additional costs or benefits beyond those already projected, and would not reduce the level of environmental protection projected.

K. Executive Order 13158: Marine Protected Areas

Executive Order 13158 (65 FR 34909, May 31, 2000) requires EPA to ''expeditiously propose new science-based regulations, as necessary, to ensure appropriate levels of protection for the marine environment.'' EPA may take action to enhance or expand protection of existing marine protected areas and to establish or recommend, as appropriate, new marine protected areas. The purpose of the Executive Order is to protect the significant natural and cultural resources within the marine environment, which means '''those areas of coastal and ocean waters, the Great Lakes and their connecting waters, and submerged lands thereunder, over which the United States exercises jurisdiction, consistent with international law.''

Today's final rule will not enhance or expand protection nor reduce the level of environmental protection of existing marine protected areas. This rule merely makes three minor technical revisions to the December 2001 Phase I final regulations for cooling water intake structures. These minor changes will clarify the Agency's intent on velocity monitoring, authority to require additional design and construction technologies, and procedures for seeking less stringent alternative requirements. It would affect the same facilities as the December 2001 rule, impose no additional costs or result in additional benefits beyond those already projected, and would not reduce the level of environmental protection projected.

L. Plain Language Directive

Executive Order 12866 encourages agencies to write all rules in plain language. EPA has written this final rule in plain language to make this rule and the final rule at 66 FR 65256, December 18, 2001 easier to understand.

M. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will be effective July 21, 2003.

List of Subjects in 40 CFR Part 125

Environmental protection, Cooling water intake structures, Reporting and recordkeeping requirements, Waste treatment and disposal, Water pollution control.

Dated: June 13, 2003.

Christine Todd Whitman,

Administrator.

■ For the reasons set forth in the preamble, chapter I of title 40 of the Code of Federal Regulations is amended as follows:

PART 125—CRITERIA AND STANDARDS FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

■ 1. The authority citation for part 125 continues to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et seq.*, unless otherwise noted.

§ 125.83 [Amended]

■ 2. Section 125.83 is amended by removing the definition for ''Minimum ambient source water surface elevation.''

■ 3. Section 125.84 is amended by revising paragraphs (b)(4)(ii), (b)(4)(iii), (b)(5)(ii), (c)(3)(ii), (c)(3)(iii), and (d)(1) to read as follows:

§ 125.84 As an owner or operator of a new facility, what must I do to comply with this subpart?

* * * * *

(b) * * *

(4) * * *

(ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the cooling water intake structure; or

(iii) It is determined by the Director, based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(1), (2), and (3) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern;

(5) * * *

(ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are or would be undesirable cumulative stressors affecting entrainable life stages of species of concern to the Director and the Director determines that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(1), (2), and (3) of this section, would still contribute unacceptable stress to the protected species , critical habitat of those species, or these species of concern;

* * * * *

(c) * * *

(3) * * *

(ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the cooling water intake structure; or

(iii) It is determined by the Director, based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in paragraphs (c)(1) and (2) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern;

* * * * *

(d) * * *

(1) You must demonstrate to the Director that the technologies employed will reduce the level of adverse environmental impact from your cooling water intake structures to a comparable level to that which you would achieve were you to implement the requirements of paragraphs (b)(1) and (2) of this section. This demonstration must include a showing that the impacts to fish and shellfish, including important forage and predator species, within the watershed will be comparable to those which would result if you were to implement the requirements of paragraphs (b)(1) and (2) of this section.

This showing may include consideration of impacts other than impingement mortality and entrainment, including measures that will result in increases in fish and shellfish, but it must demonstrate comparable performance for species that the Director identifies as species of concern. In identifying such species, the Director may consider information provided by any fishery management agency(ies) along with data and information from other sources.

* * * * *

■ 4. Section 125.85 is amended by revising paragraphs (a)(2) and (3) to read as follows:

§ 125.85 May alternative requirements be authorized?

(a) * * *

(2) The Director determines that data specific to the facility indicate that compliance with the requirement at issue would result in compliance costs wholly out of proportion to the costs EPA considered in establishing the requirement at issue or would result in significant adverse impacts on local air quality, significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on local energy markets;

(3) The alternative requirement requested is no less stringent than justified by the wholly out of proportion cost or the significant adverse impacts on local air quality, significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on local energy markets; and

* * * * *

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