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 revising the entry for ''122.21(r)'' and 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, 2040–0257, xxxx–xxxx
* * * * * * *	
Criteria and Standards for the National Pollutant Discharge Elimination System	
* * * * * * *	
125.103	xxxx–xxxx
125.104	xxxx–xxxx
125.106	xxxx–xxxx
125.107	xxxx–xxxx
125.108	xxxx–xxxx
* * * * * * *	

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 as follows:

a. Revising paragraph (r)(1).

b. Adding a new paragraph (r)(2)(iv).

c. Revising paragraph (r)(4) introductory text.

d. Revising paragraph (r)(5) introductory text.

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

* * * * *

(r) *Application requirements for facilities with cooling water intake structures*—(1)(i) *New facilities with new or modified cooling water intake structures.* New facilities (other than offshore oil and gas extraction facilities) with cooling water intake structures as defined in part 125, subpart I, of this chapter must submit to the Director for review the information required under paragraphs (r)(2) (except (r)(2)(iv)), (3), and (4) of this section and § 125.86 of this chapter as part of their application. New offshore oil and gas extraction facilities with cooling water intake structures as defined in part 125, subpart N, of this chapter that are fixed facilities must submit to the Director for review the information required under paragraphs (r)(2) (except (r)(2)(iv)), (3), and (4) of this section and § 125.136 of this chapter as part of their application. New offshore oil and gas extraction facilities that are *not* fixed facilities must submit to the Director for review only the information required under paragraphs (r)(2)(iv), (r)(3) (except (r)(3)(ii)), and § 125.136 of this chapter as part of their application. Requests for alternative requirements under § 125.85 or § 125.135 of this chapter must be submitted with your permit application.

(ii) *Phase II existing facilities.* Phase II existing facilities as defined in part 125, subpart J, of this chapter must submit to the Director for review the information required under paragraphs (r)(2) (except (r)(2)(iv)), (3), and (5) of this section and all applicable provisions of § 125.95 of this chapter as part of their application except for the Proposal for Information Collection which must be provided in accordance with § 125.95(b)(1).

(iii) *Phase III existing facilities.* Phase III existing facilities as defined in part 125, subpart K, of this chapter must submit to the Director for review the information required under paragraphs (r)(2) (except (r)(2)(iv)), (3), and (5) of this section and all applicable provisions of § 125.104 of this chapter as part of their application except for the Proposal for Information Collection which must be provided in accordance with § 125.104(b)(1) of this chapter.

(2) * * *

(iv) For new offshore oil and gas facilities that are *not* fixed facilities, a narrative description and/or locational maps providing information on predicted locations within the waterbody during the permit term in sufficient detail for the Director to determine the appropriateness of additional impingement requirements under § 125.134(b)(4) of this chapter.

* * * * *

(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) or § 125.136(b)(3) 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:

* * * * *

(5) *Cooling water system data.* Phase II and III existing facilities as defined in part 125, subparts J and K, respectively, of this chapter must provide the

following information for each cooling water intake structure they use:

* * * * *

3. Section 122.44 is amended by revising 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 under section 316(b) of the CWA, in accordance with part 125, subparts I, J, K, and N of this chapter.

* * * * *

PART 123—STATE PROGRAM REQUIREMENTS

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

Authority: 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, I, J, K, and N 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 revising 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 under section 316(b) of the CWA, in accordance with part 125, subparts I , J, K, and N 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: Clean Water Act, 33 U.S.C. 1251 *et seq.*; unless otherwise noted.

2. Add subpart K to part 125 to read as follows:

Subpart K—Requirements Applicable to Cooling Water Intake Structures for Phase III Existing Facilities Under Section 316(b) of the Act

Sec.

Subpart K—Requirements Applicable to Cooling Water Intake Structures for Phase III Existing Facilities Under Section 316(b) of the Act

§ 125.100 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 existing facilities that are subject to this subpart (*i.e.*, Phase III existing 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) Existing facilities that are not subject to requirements under this or another subpart of this Part must meet requirements under section 316(b) of the CWA determined by the Director on a case-by-case, best professional judgment (BPJ) basis.

(c) *Alternative regulatory requirements.* Notwithstanding any other provision of this subpart, if a State demonstrates to the Administrator that it has adopted alternative regulatory requirements in its NPDES program that will result in environmental performance within a watershed that is comparable to the reductions of impingement mortality and entrainment that would otherwise be achieved under § 125.103, the Administrator must approve such alternative regulatory requirements.

(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 not less stringent than those required by Federal law.

§ 125.101 What is a ''Phase III existing facility''?

OPTION A FOR PARAGRAPH (a)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 50 MGD or more, located on any waterbody type]:

(a) An existing facility, as defined in § 125.102, is a Phase III existing facility subject to this subpart if it meets each of the following criteria:

(1) It is a point source;

(2) It uses or proposes to use cooling water intake structures with a total design intake flow of 50 million gallons per day (MGD) or more to withdraw cooling water from waters of the United States;

(3) It is an existing facility other than a Phase II existing facility as defined in § 125.91 and § 125.93; and

(4) It uses at least 25 percent of water withdrawn exclusively for cooling purposes, measured on an average annual basis.

OPTION B FOR PARAGRAPH (a)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 200 MGD or more, located on any waterbody type]:

(a) An existing facility, as defined in § 125.102, is a Phase III existing facility subject to this subpart if it meets each of the following criteria:

(1) It is a point source;

(2) It uses or proposes to use cooling water intake structures with a total design intake flow of 200 million gallons per day (MGD) or more to withdraw cooling water from waters of the United States;

(3) It is an existing facility other than a Phase II existing facility as defined in § 125.91 and § 125.93; and

(4) It uses at least 25 percent of water withdrawn exclusively for cooling

purposes, measured on an average annual basis.

OPTION C FOR PARAGRAPH (a)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 100 MGD or more, located on oceans, estuaries, tidal rivers, or one of the Great Lakes]:

(a) An existing facility, as defined in § 125.102, is a Phase III existing facility subject to this subpart if it meets each of the following criteria:

(1) It is a point source;

(2) It uses or proposes to use cooling water intake structures with a total design intake flow of 100 million gallons per day (MGD) or more to withdraw cooling water from waters of the United States;

(3) It withdraws cooling water from an ocean, estuary, tidal river, or one of the Great Lakes;

(4) It is an existing facility other than a Phase II existing facility as defined in § 125.91 and § 125.93; and

(5) It uses at least 25 percent of water withdrawn exclusively for cooling purposes, measured on an average annual basis.

(b) If an existing manufacturing facility is co-located with one or more existing facilities (that are not Phase II existing facilities as defined in § 125.91 and § 125.93), each of the co-located facilities would be considered a Phase III existing facility if the combined total design intake flow of the co-located facilities is greater than the flow threshold established in paragraph (a)(2) of this section and each of the facilities meets the remaining applicability criteria in paragraph (a) of this section.

(c) Use of a cooling water intake structure includes obtaining cooling water by any sort of contract or arrangement with one or more independent suppliers of cooling water if the supplier withdraws water from waters of the United States but is not itself a Phase II existing facility (as defined in § 125.91 and § 125.93) or Phase III existing facility, except as provided in paragraph (d) of this section. 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 Phase II or Phase III existing facility.

(d) Notwithstanding paragraph (c) of this section, obtaining cooling water from a public water system or using treated effluent as cooling water at a Phase III existing facility does not constitute use of a cooling water intake structure for purposes of this subpart.

§ 125.102 What special definitions apply to this subpart?

In addition to the definitions provided in § 122.3 of this chapter, the following special definitions apply to this subpart:

Adaptive management method is a type of project management method where a facility chooses an approach to meeting the project goal, monitors the effectiveness of that approach, and then based on monitoring and any other relevant information, makes any adjustments necessary to ensure continued progress toward the project's goal. This cycle of activity is repeated as necessary to reach the project's goal.

All life stages means eggs, larvae, juveniles, and adults.

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

Calculation baseline means an estimate of impingement mortality and entrainment that would occur at your site assuming that: the cooling water system has been designed as a once-through system; the opening of the cooling water intake structure is located at, and the face of the standard 3/8-inch mesh traveling screen is oriented parallel to, the shoreline near the surface of the source waterbody; and the baseline practices, procedures, and structural configuration are those that your facility would maintain in the absence of any structural or operational controls, including flow or velocity reductions, implemented in whole or in part for the purposes of reducing impingement mortality and entrainment. You may also choose to use the current level of impingement mortality and entrainment as the calculation baseline. The calculation baseline may be estimated using: historical impingement mortality and entrainment data from your facility or from another facility with comparable design, operational, and environmental conditions; current biological data collected in the waterbody in the vicinity of your cooling water intake structure; or current impingement mortality and entrainment data collected at your facility. You may request that the calculation baseline be modified to be based on a location of the opening of the cooling water intake structure at a depth other than at or near the surface if you can demonstrate to the Director that the other depth would correspond to a higher baseline level of impingement mortality and/or entrainment.

Closed-cycle recirculating system means a system designed, using minimized make-up 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 facility's intake flow that is used for cooling purposes in § 125.101(a)(4).

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 and construction technology means any physical configuration of the cooling water intake structure, or a technology that is placed in the water body in front of the cooling water intake structure, to reduce impingement mortality and/or entrainment. Design and construction technologies include, but are not limited to, location of the intake structure, intake screen systems, passive intake systems, fish diversion and/or avoidance systems, and fish handling and return systems. Restoration measures are not design and construction technologies for purposes of this definition.

Design intake flow means the value assigned (during the cooling water intake structure design) to the total volume of water withdrawn from a source waterbody 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.

Diel means daily and refers to variation in organism abundance and density over a 24-hour period due to the

influence of water movement, physical or chemical changes, and changes in light intensity.

Entrainment means the incorporation of any 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 commenced construction as described in 40 CFR 122.29(b)(4) on or before January 17, 2002 (or [60 days from publication of the final rule] for an offshore oil and gas extraction facility); and any modification of, or any addition of a unit at such a facility that does not meet the definition of a new facility at § 125.83.

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.

Impingement means the entrapment of any 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.

Moribund means dying; close to death.

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

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

Once-through cooling water system means a system designed to withdraw water from a natural or other water source, use it at the facility to support contact and/or noncontact cooling uses, and then discharge it to a waterbody without recirculation. Once-through cooling systems sometimes employ canals/channels, ponds, or non-recirculating cooling towers to dissipate waste heat from the water before it is discharged.

Operational measure means a modification to any operation at a facility that serves to minimize impact to fish and shellfish from the cooling water intake structure. Examples of operational measures include, but are not limited to: reductions in cooling water intake flow through the use of variable speed pumps and seasonal flow reductions or shutdowns; and more frequent rotation of traveling screens.

Source water means the waters of the U.S. from which the cooling water is withdrawn.

Supplier means an entity, other than the regulated facility, that owns and operates its own cooling water intake structure and directly withdraws water from waters of the United States. The supplier sells the cooling water to other facilities for their use, but may also use a portion of the water itself. An entity that provides potable water to residential populations (*e.g.*, public water system) is not a supplier for purposes of this subpart.

Thermocline means the middle layer of a thermally stratified lake or a reservoir. In this layer, there is a rapid change in temperatures between the top and bottom of the layer.

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.

§ 125.103 How will requirements reflecting best technology available for minimizing adverse environmental impact be established for my Phase III existing facility?

(a) *Compliance Alternatives.* You must select and implement one of the following five alternatives for establishing best technology available for minimizing adverse environmental impact at your facility:

(1)(i) You may demonstrate to the Director that you have reduced, or will reduce, your flow commensurate with a closed-cycle recirculating system. In this case, you are deemed to have met the applicable performance standards and will *not* be required to demonstrate further that your facility meets the impingement mortality and entrainment performance standards specified in paragraph (b) of this section. In addition, you are not subject to the requirements in §§ 125.104, 125.105, 125.106, or 125.107. However, you may still be subject to any more stringent requirements established under paragraph (e) of this section; or

(ii) You may demonstrate to the Director that you have reduced, or will reduce, your maximum through-screen design intake velocity to 0.5 ft/s or less. In this case, you are deemed to have met the impingement mortality performance standards and will *not* be required to demonstrate further that your facility meets the performance standards for impingement mortality specified in paragraph (b) of this section and you are not subject to the requirements in §§ 125.104, 125.105, 125.106, or 125.107 as they apply to impingement mortality. However, you are still subject to any applicable requirements for entrainment reduction and may still be subject to any more stringent requirements established under paragraph (e) of this section.

(2) You may demonstrate to the Director that your existing design and construction technologies, operational measures, and/or restoration measures meet the performance standards specified in paragraph (b) of this section and/or the restoration requirements in paragraph (c) of this section;

(3) You may demonstrate to the Director that you have selected, and will install and properly operate and maintain, design and construction technologies, operational measures, and/or restoration measures that will, in combination with any existing design and construction technologies, operational measures, and/or restoration measures, meet the performance standards specified in paragraph (b) of this section and/or the restoration requirements in paragraph (c) of this section;

(4) You may demonstrate to the Director that you have installed, or will install, and properly operate and maintain an approved design and construction technology in accordance with § 125.108(a) or (b); or

(5) You may demonstrate to the Director that you have selected, installed, and are properly operating and maintaining, or will install and properly operate and maintain design and construction technologies, operational measures, and/or restoration measures that the Director has determined to be the best technology available to minimize adverse environmental impact for your facility in accordance with paragraphs (a)(5)(i) or (a)(5)(ii) of this section.

(i) If the Director determines that data specific to your facility demonstrate that the costs of compliance under

alternatives in paragraphs (a)(2) through (4) of this section would be significantly greater than the costs considered by the Administrator for a facility like yours in establishing the applicable performance standards in paragraph (b) of this section, the Director must make a site-specific determination of the best technology available for minimizing adverse environmental impact. This determination must be based on reliable, scientifically valid cost and performance data submitted by you and any other information that the Director deems appropriate. The Director must establish site-specific alternative requirements based on new and/or existing design and construction technologies, operational measures, and/or restoration measures that achieve an efficacy that is, in the judgment of the Director, as close as practicable to the applicable performance standards in paragraph (b) of this section, without resulting in costs that are significantly greater than the costs considered by the Administrator for a facility like yours in establishing the applicable performance standards. The Director's site-specific determination may conclude that design and construction technologies, operational measures, and/or restoration measures in addition to those already in place are not justified because of the significantly greater costs. To calculate the costs considered by the Administrator for a facility like yours in establishing the applicable performance standards you must:

(A) Determine which technology the Administrator modeled as the most appropriate compliance technology for your facility;

(B) Using the Administrator's costing equations, calculate the annualized capital and net operation and maintenance (O&M) costs for a facility with your design intake flow using this technology;

(C) Determine the annualized net revenue loss associated with net construction downtime that the Administrator modeled for your facility to install this technology;

(D) Determine the annualized pilot study costs that the Administrator modeled for your facility to test and optimize this technology;

(E) Sum the cost items in paragraphs (a)(5)(i)(B), (a)(5)(i)(C), and (a)(5)(i)(D) of this section; and

(F) Determine if the performance standards that form the basis of these estimates (*i.e.*, impingement mortality reduction only or impingement mortality and entrainment reduction) are applicable to your facility, and if necessary, adjust the estimates to correspond to the applicable performance standards.

(ii) If the Director determines that data specific to your facility demonstrate that the costs of compliance under alternatives in paragraphs (a)(2) through (4) of this section would be significantly greater than the benefits of complying with the applicable performance standards at your facility, the Director must make a site-specific determination of best technology available for minimizing adverse environmental impact. This determination must be based on reliable, scientifically valid cost and performance data submitted by you and any other information the Director deems appropriate. The Director must establish site-specific alternative requirements based on new and/or existing design and construction technologies, operational measures, and/or restoration measures that achieve an efficacy that, in the judgment of the Director, is as close as practicable to the applicable performance standards in paragraph (b) of this section without resulting in costs that are significantly greater than the benefits at your facility. The Director's site-specific determination may conclude that design and construction technologies, operational measures, and/or restoration measures in addition to those already in place are not justified because the costs would be significantly greater than the benefits at your facility.

OPTION A FOR PARAGRAPH (b)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 50 MGD or more, located on any waterbody type or the regulatory option that defines a Phase III existing facility as one with design intake flows 200 MGD or more, located on any waterbody type]:

(b) *National Performance Standards*—(1) *Impingement Mortality Performance Standards.* If you choose compliance alternatives in paragraphs (a)(2), (a)(3), or (a)(4) of this section, you must reduce impingement mortality for all life stages of fish and shellfish by 80 to 95 percent from the calculation baseline.

(2) *Entrainment Performance Standards.* If you choose compliance alternatives in paragraphs (a)(1)(ii), (a)(2), (a)(3), or (a)(4) of this section, you must also reduce entrainment of all life stages of fish and shellfish by 60 to 90 percent from the calculation baseline if:

(i) Your facility is a Phase III existing facility; and

(ii)(A) Your facility uses cooling water withdrawn from a tidal river, estuary, ocean, or one of the Great Lakes; or

(B) Your facility uses cooling water withdrawn from a freshwater river or stream and the design intake flow of your cooling water intake structures is greater than five percent of the mean annual flow.

(3) *Additional Performance Standards for Facilities Withdrawing from a Lake (Other Than One of the Great Lakes) or a Reservoir.* If your facility withdraws cooling water from a lake (other than one of the Great Lakes) or a reservoir and you propose to increase the design intake flow of cooling water intake structures it uses, your increased 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 does not adversely affect the management of fisheries. In determining whether any such disruption does not adversely affect the management of fisheries, you must consult with Federal, State, or Tribal fish and wildlife management agencies.

(4) *Use of Performance Standards for Site-Specific Determinations of Best Technology Available.* The performance standards in paragraphs (b)(1) and (2) of this section must also be used for determining eligibility for site-specific determinations of best technology available for minimizing adverse environmental impact and establishing site-specific requirements that achieve an efficacy as close as practicable to the applicable performance standards without resulting in costs that are significantly greater than those considered by the Administrator for a facility like yours in establishing the performance standards or costs that are significantly greater than the benefits at your facility, pursuant to paragraph (a)(5) of this section.

OPTION B FOR PARAGRAPH (b)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 100 MGD or more, located on oceans, estuaries, tidal rivers, or one of the Great Lakes]:

(b) *National Performance Standards*—(1) *Impingement Mortality Performance Standards.* If you choose compliance alternatives in paragraphs (a)(2), (a)(3), or (a)(4) of this section, you must reduce impingement mortality for all life stages of fish and shellfish by 80 to 95 percent from the calculation baseline.

(2) *Entrainment Performance Standards.* If you choose compliance alternatives in paragraphs (a)(1)(ii), (a)(2), (a)(3), or (a)(4) of this section, you must also reduce entrainment of all life stages of fish and shellfish by 60 to 90 percent from the calculation baseline.

(3) *Use of Performance Standards for Site-Specific Determinations of Best Technology Available.* The performance standards in paragraphs (b)(1) and (2) of this section must also be used for determining eligibility for site-specific determinations of best technology available for minimizing adverse environmental impact and establishing site specific requirements that achieve an efficacy as close as practicable to the applicable performance standards without resulting in costs that are significantly greater than those considered by the Administrator for a facility like yours in establishing the performance standards or costs that are significantly greater than the benefits at your facility, pursuant to paragraph (a)(5) of this section.

(c) *Requirements for Restoration Measures.* With the approval of the Director, you may implement and adaptively manage restoration measures that produce and result in increases of fish and shellfish in your facility's watershed in place of or as a supplement to installing design and control technologies and/or adopting operational measures that reduce impingement mortality and entrainment. You must demonstrate to the Director that:

(1) You have evaluated the use of design and construction technologies and operational measures for your facility and determined that the use of restoration measures is appropriate because meeting the applicable performance standards or site-specific requirements through the use of design and construction technologies and/or operational measures alone is less feasible, less cost-effective, or less environmentally desirable than meeting the standards or requirements in whole or in part through the use of restoration measures; and

(2) The restoration measures you will implement, alone or in combination with design and construction technologies and/or operational measures, will produce ecological benefits (fish and shellfish), including maintenance or protection of community structure and function in your facility's waterbody or watershed, at a level that is substantially similar to the level you would achieve by meeting the applicable performance standards under paragraph (b) of this section, or that satisfies alternative site-specific requirements established pursuant to paragraph (a)(5) of this section.

(d)(1) *Compliance Using a Technology Installation and Operation Plan or Restoration Plan.* If you choose one of the compliance alternatives in paragraphs (a)(2), (3), (4), or (5) of this section, you may request that compliance with the requirements of paragraphs (a)(5) and (b) of this section during the first permit containing requirements consistent with this subpart be determined based on whether you have complied with the construction, operational, maintenance, monitoring, and adaptive management requirements of a Technology Installation and Operation Plan developed in accordance with § 125.104(b)(4)(ii) (for any design and construction technologies and/or operational measures) and/or a Restoration Plan developed in accordance with § 125.104(b)(5) (for any restoration measures). The Technology Installation and Operation Plan must be designed to meet applicable performance standards in paragraph (b) of this section or alternative site-specific requirements developed pursuant to paragraph (a)(5) of this section. The Restoration Plan must be designed to achieve compliance with the applicable requirements in paragraph (c) of this section.

(2) During subsequent permit terms, if you selected and installed design and construction technologies and/or operational measures and have been in compliance with the construction, operational, maintenance, monitoring, and adaptive management requirements of your Technology Installation and Operation Plan during the preceding permit term, you may request that compliance with the requirements of this section during the following permit term be determined based on whether you remain in compliance with your Technology Installation and Operation Plan, revised in accordance with your adaptive management plan in § 125.104(b)(4)(ii)(C) if applicable performance standards are not being met. Each request and approval of a Technology Installation and Operation Plan shall be limited to one permit term.

(3) During subsequent permit terms, if you selected and installed restoration measures and have been in compliance with the construction, operational, maintenance, monitoring, and adaptive management requirements in your Restoration Plan during the preceding permit term, you may request that compliance with the requirements of this section during the following permit term be determined based on whether you remain in compliance with your Restoration Plan, revised in accordance with your adaptive management plan in § 125.104(b)(5)(v) if applicable performance standards are not being met. Each request and approval of a Restoration Plan shall be limited to one permit term.

(e) *More Stringent Standards.* The Director may establish more stringent requirements as best technology available for minimizing adverse environmental impact if the Director determines that your compliance with the applicable requirements of this section would not meet the requirements of applicable State and Tribal law, or other Federal law.

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

(a)(1) You must submit to the Director the Proposal for Information Collection required in paragraph (b)(1) of this section prior to the start of information collection activities;

(2) You must submit to the Director the information required in 40 CFR 122.21(r)(2) (except (r)(2)(iv)), (r)(3) and (r)(5) and any applicable portions of the Comprehensive Demonstration Study (Study), except for the Proposal for Information Collection required by paragraph (b)(1) of this section; and

(i) You must submit your NPDES permit application in accordance with the time frames specified in 40 CFR 122.21(d)(2).

(ii) If you are a Phase III existing facility and your existing permit expires before [4 years from publication of the final rule], you may request that the Director establish a schedule for you to submit the information required by this section as expeditiously as practicable, but not later than [3 years and 180 days from publication of the final rule]. Between the time your existing permit expires and the time an NPDES permit containing requirements consistent with this subpart is issued to your facility, the best technology available to minimize adverse environmental impact will continue to be determined based on the Director's best professional judgment.

(3) In subsequent permit terms, the Director may approve a request to reduce the information required to be submitted in your permit application on the cooling water intake structure(s) and the source waterbody, if conditions at your facility and in the waterbody remain substantially unchanged since your previous application. You must submit your request for reduced cooling water intake structure and waterbody application information to the Director at least one year prior to the expiration of the permit. Your request must identify each required information item in 40 CFR 122.21(r) and this section that you determine has not substantially changed since the previous permit

application and the basis for your determination.

OPTION A FOR PARAGRAPH (b)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 50 MGD or more, located on any waterbody type or the regulatory option that defines a Phase III existing facility as one with design intake flows 200 MGD or more, located on any waterbody type]:

(b) *Comprehensive Demonstration Study* The purpose of the Comprehensive Demonstration Study (Study) is to characterize impingement mortality and entrainment, to describe the operation of your cooling water intake structures, and to confirm that the technologies, operational measures, and/or restoration measures you have selected and installed, or will install, at your facility meet the applicable requirements of § 125.103. All facilities except those that have met the applicable requirements in accordance with §§ 125.103(a)(1)(i), 125.103(a)(1)(ii), and 125.103(a)(4) must submit all applicable portions of the Comprehensive Demonstration Study to the Director in accordance with paragraph (a) of this section. Facilities that meet the requirements in § 125.103(a)(1)(i) by reducing their flow commensurate with a closed-cycle, recirculating system are not required to submit a Comprehensive Demonstration Study. Facilities that meet the requirements in § 125.103(a)(1)(ii) by reducing their design intake velocity to 0.5 ft/sec or less are required to submit a Study only for the entrainment requirements, if applicable. Facilities that meet the requirements in § 125.103(a)(4) and have installed and properly operate and maintain an approved design and construction technology (in accordance with § 125.108) are required to submit only the Technology Installation and Operation Plan in paragraph (b)(4) of this section and the Verification Monitoring Plan in paragraph (b)(7) of this section. Facilities that are required to meet only impingement mortality performance standards in § 125.103(b)(1) are required to submit only a Study for the impingement mortality reduction requirements. The Comprehensive Demonstration Study must include:

(1) *Proposal For Information Collection.* You must submit to the Director for review and comment a description of the information you will use to support your Study. The Proposal for Information Collection must be submitted prior to the start of information collection activities, but you may initiate such activities prior to receiving comment from the Director. The proposal must include:

(i) A description of the proposed and/or implemented technologies, operational measures, and/or restoration measures to be evaluated in the Study;

(ii) A list and description of any historical studies characterizing impingement mortality and entrainment and/or the physical and biological conditions in the vicinity of the cooling water intake structures and their relevance to this proposed Study. If you propose to use existing data, you must demonstrate the extent to which the data are representative of current conditions and that the data were collected using appropriate quality assurance/quality control procedures;

(iii) A summary of any past or ongoing consultations with appropriate Federal, State, and Tribal fish and wildlife agencies that are relevant to this Study and a copy of written comments received as a result of such consultations; and

(iv) A sampling plan for any new field studies you propose to conduct in order to ensure that you have sufficient data to develop a scientifically valid estimate of impingement mortality and entrainment at your site. The sampling plan must document all methods and quality assurance/quality control procedures for sampling and data analysis. The sampling and data analysis methods you propose must be appropriate for a quantitative survey and include consideration of the methods used in other studies performed in the source waterbody. The sampling plan must include a description of the study area (including the area of influence of the cooling water intake structure(s)), and provide a taxonomic identification of the sampled or evaluated biological assemblages (including all life stages of fish and shellfish).

(2) *Source Waterbody Flow Information.* You must submit to the Director the following source waterbody flow information:

(i) If your cooling water intake structure is located in a freshwater river or stream, you must provide the annual mean flow of the waterbody and any supporting documentation and engineering calculations to support your analysis of whether your design intake flow is greater than five percent of the mean annual flow of the river or stream for purposes of determining applicable performance standards under § 125.103(b). Representative historical data (from a period of time up to 10 years, if available) must be used; and

(ii) If your cooling water intake structure is located in a lake (other than one of the Great Lakes) or a reservoir and you propose to increase its design intake flow, you must provide a description of the thermal stratification in the waterbody, and any supporting documentation and engineering calculations to show that the total design intake flow after the increase will not disrupt the natural thermal stratification and turnover pattern in a way that adversely impacts fisheries, including the results of any consultations with Federal, State, or Tribal fish and wildlife management agencies.

(3) *Impingement Mortality and/or Entrainment Characterization Study.* You must submit to the Director an Impingement Mortality and/or Entrainment Characterization Study whose purpose is to provide information to support the development of a calculation baseline for evaluating impingement mortality and entrainment and to characterize current impingement mortality and entrainment. The Impingement Mortality and/or Entrainment Characterization Study must include the following, in sufficient detail to support development of the other elements of the Comprehensive Demonstration Study:

(i) Taxonomic identifications of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal Law (including threatened or endangered species) that are in the vicinity of the cooling water intake structure(s) and are susceptible to impingement and entrainment;

(ii) A characterization of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal Law (including threatened or endangered species) identified pursuant to paragraph (b)(3)(i) of this section, including a description of the abundance and temporal and spatial characteristics in the vicinity of the cooling water intake structure(s), based on sufficient data to characterize annual, seasonal, and diel variations in impingement mortality and entrainment (*e.g.*, related to climate and weather differences, spawning, feeding and water column migration). These may include historical data that are representative of the current operation of your facility and of biological conditions at the site;

(iii) Documentation of the current impingement mortality and entrainment of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal Law (including threatened or endangered species)

identified pursuant to paragraph (b)(3)(i) of this section and an estimate of impingement mortality and entrainment to be used as the calculation baseline. The documentation may include historical data that are representative of the current operation of your facility and of biological conditions at the site. Impingement mortality and entrainment samples to support the calculations required in paragraphs (b)(4)(i)(C) and (b)(5)(iii) of this section must be collected during periods of representative operational flows for the cooling water intake structure and the flows associated with the samples must be documented;

(4) *Technology and Compliance Assessment Information*—(i) *Design and Construction Technology Plan.* If you choose to use design and construction technologies and/or operational measures, in whole or in part to meet the requirements of § 125.103(a)(2) or (3), you must submit a Design and Construction Technology Plan to the Director for review and approval. The plan must explain the technologies and/or operational measures you have in place and/or have selected to meet the requirements in § 125.103. (Examples of potentially appropriate technologies may include, but are not limited to, wedgewire screens, fine mesh screens, fish handling and return systems, barrier nets, aquatic filter barrier systems, vertical and/or lateral relocation of the cooling water intake structure, and enlargement of the cooling water intake structure opening to reduce velocity. Examples of potentially appropriate operational measures may include, but are not limited to, seasonal shutdowns, reductions in flow, and continuous or more frequent rotation of traveling screens.) The plan must contain the following information:

(A) A narrative description of the design and operation of all design and construction technologies and/or operational measures (existing and proposed), including fish handling and return systems, that you have in place or will use to meet the requirements to reduce impingement mortality of those species expected to be most susceptible to impingement, and information that demonstrates the efficacy of the technologies and/or operational measures for those species;

(B) A narrative description of the design and operation of all design and construction technologies and/or operational measures (existing and proposed) that you have in place or will use to meet the requirements to reduce entrainment of those species expected to be the most susceptible to entrainment, if applicable, and information that demonstrates the efficacy of the technologies and/or operational measures for those species;

(C) Calculations of the reduction in impingement mortality and entrainment of all life stages of fish and shellfish that would be achieved by the technologies and/or operational measures you have selected based on the Impingement Mortality and/or Entrainment Characterization Study in paragraph (b)(3) of this section. In determining compliance with any requirements to reduce impingement mortality or entrainment, you must assess the total reduction in impingement mortality and entrainment against the calculation baseline determined in accordance with paragraph (b)(3) of this section. Reductions in impingement mortality and entrainment from this calculation baseline as a result of any design and construction technologies and/or operational measures already implemented at your facility should be added to the reductions expected to be achieved by any additional design and/or construction technologies and operational measures that will be implemented, and any increases in fish and shellfish within the waterbody attributable to your restoration measures. Facilities that recirculate a portion of their flow, but do not reduce flow sufficiently to satisfy the compliance option in § 125.103(a)(1)(i) may take into account the reduction in impingement mortality and entrainment associated with the reduction in flow when determining the net reduction associated with existing design and construction technologies and/or operational measures. This estimate must include a site-specific evaluation of the suitability of the technologies and/or operational measures based on the species that are found at the site, and may be determined based on representative studies (*i.e.*, studies that have been conducted at a similar facility's cooling water intake structures located in the same waterbody type with similar biological characteristics) and/or site-specific technology prototype or pilot studies; and

(D) Design and engineering calculations, drawings, and estimates prepared by a qualified professional to support the descriptions required by paragraphs (b)(4)(i)(A) and (B) of this section.

(ii) *Technology Installation and Operation Plan.* If you choose the compliance alternative in § 125.103(a)(2), (3), (4), or (5) and use design and construction technologies and/or operational measures in whole or in part to comply with the applicable requirements of § 125.103, you must submit the following information with your application for review and approval by the Director:

(A) A schedule for the installation and maintenance of any new design and construction technologies. Any downtime of generating units to accommodate installation and/or maintenance of these technologies should be scheduled to coincide with otherwise necessary downtime (*e.g.*, for repair, overhaul, or routine maintenance of the generating units) to the extent practicable. Where additional downtime is required, you may coordinate scheduling of this downtime with the North American Electric Reliability Council and/or other generators in your area to ensure that impacts to reliability and supply are minimized;

(B) List of operational and other parameters to be monitored, and the location and frequency that you will monitor them;

(C) List of activities you will undertake to ensure to the degree practicable the efficacy of installed design and construction technologies and operational measures, and your schedule for implementing them;

(D) A schedule and methodology for assessing the efficacy of any installed design and construction technologies and operational measures in meeting applicable performance standards or site-specific requirements, including an adaptive management plan for revising design and construction technologies, operational measures, operation and maintenance requirements, and/or monitoring requirements if your assessment indicates that applicable performance standards or site-specific requirements are not being met; and

(E) If you choose the compliance alternative in § 125.103(a)(4), documentation that the appropriate site conditions in § 125.108(a) or (b) exist at your facility.

(5) *Restoration Plan.* If you propose to use restoration measures, in whole or in part, to meet the applicable requirements in § 125.103, you must submit the following information with your application for review and approval by the Director. You must address species of concern identified in consultation with Federal, State, and Tribal fish and wildlife management agencies with responsibility for fisheries and wildlife potentially affected by your cooling water intake structure(s).

(i) A demonstration to the Director that you have evaluated the use of design and construction technologies and/or operational measures for your facility and an explanation of how you determined that restoration would be

more feasible, cost-effective, or environmentally desirable;

(ii) A narrative description of the design and operation of all restoration measures (existing and proposed) that you have in place or will use to produce fish and shellfish;

(iii) Quantification of the ecological benefits of the proposed restoration measures. You must use information from the Impingement Mortality and/or Entrainment Characterization Study required in paragraph (b)(3) of this section, and any other available and appropriate information, to estimate the reduction in fish and shellfish impingement mortality and/or entrainment that would be necessary for your facility to comply with § 125.103(c)(2). You must then calculate the production of fish and shellfish that you will achieve with the restoration measures you will or have already installed. You must include a discussion of the nature and magnitude of uncertainty associated with the performance of these restoration measures. You must also include a discussion of the time frame within which these ecological benefits are expected to accrue;

(iv) Design calculations, drawings, and estimates to document that your proposed restoration measures in combination with design and construction technologies and/or operational measures, or alone, will meet the requirements of § 125.103(c)(2). If the restoration measures address the same fish and shellfish species identified in the Impingement Mortality and/or Entrainment Characterization Study (in-kind restoration), you must demonstrate that the restoration measures will produce a level of these fish and shellfish substantially similar to that which would result from meeting applicable performance standards in § 125.103(b), or that they will satisfy site-specific requirements established pursuant to § 125.103(a)(5). If the restoration measures address fish and shellfish species different from those identified in the Impingement Mortality and/or Entrainment Characterization Study (out-of-kind restoration), you must demonstrate that the restoration measures produce ecological benefits substantially similar to or greater than those that would be realized through in-kind restoration. Such a demonstration should be based on a watershed approach to restoration planning and consider applicable multi-agency watershed restoration plans, site-specific peer-reviewed ecological studies, and/or consultation with appropriate Federal, State, and Tribal fish and wildlife management agencies.

(v) A plan utilizing an adaptive management method for implementing, maintaining, and demonstrating the efficacy of the restoration measures you have selected and for determining the extent to which the restoration measures, or the restoration measures in combination with design and construction technologies and operational measures, have met the applicable requirements of § 125.103(c)(2). The plan must include:

(A) A monitoring plan that includes a list of the restoration parameters that will be monitored, the frequency at which you will monitor them, and success criteria for each parameter;

(B) A list of activities you will undertake to ensure the efficacy of the restoration measures, a description of the linkages between these activities and the items in paragraph (b)(5)(v)(A) of this section, and an implementation schedule; and

(C) A process for revising the Restoration Plan as new information, including monitoring data, becomes available, if the applicable requirements under § 125.103(c)(2) are not being met.

(vi) A summary of any past or ongoing consultation with appropriate Federal, State, and Tribal fish and wildlife management agencies on your use of restoration measures including a copy of any written comments received as a result of such consultations;

(vii) If requested by the Director, a peer review of the items you submit for the Restoration Plan. You must choose the peer reviewers in consultation with the Director who may consult with EPA and Federal, State, and Tribal fish and wildlife management agencies with responsibility for fish and wildlife potentially affected by your cooling water intake structure(s). Peer reviewers must have appropriate qualifications (*e.g.*, in the fields of geology, engineering, and/or biology, *etc.*) depending upon the materials to be reviewed; and

(viii) A description of the information to be included in a biennial status report to the Director.

(6) *Information to Support Site-specific Determination of Best Technology Available for Minimizing Adverse Environmental Impact.* If you have requested a site-specific determination of best technology available for minimizing adverse environmental impact pursuant to § 125.103(a)(5)(i) because of costs significantly greater than those considered by the Administrator for a facility like yours in establishing the applicable performance standards of § 125.103(b), you are required to provide to the Director the information specified in paragraphs (b)(6)(i) and (b)(6)(iii) of this section. If you have requested a site-specific determination of best technology available for minimizing adverse environmental impact pursuant to § 125.103(a)(5)(ii) because of costs significantly greater than the benefits of meeting the applicable performance standards of § 125.103(b) at your facility, you must provide the information specified in paragraphs (b)(6)(i), (b)(6)(ii), and (b)(6)(iii) of this section:

(i) *Comprehensive Cost Evaluation Study.* You must perform and submit the results of a Comprehensive Cost Evaluation Study, that includes:

(A) Engineering cost estimates in sufficient detail to document the costs of implementing design and construction technologies, operational measures, and/or restoration measures at your facility that would be needed to meet the applicable performance standards of § 125.103(b);

(B) A demonstration that the costs documented in paragraph (b)(6)(i)(A) of this section significantly exceed either those considered by the Administrator for a facility like yours in establishing the applicable performance standards or the benefits of meeting the applicable performance standards at your facility; and

(C) Engineering cost estimates in sufficient detail to document the costs of implementing the design and construction technologies, operational measures, and/or restoration measures in your Site-Specific Technology Plan developed in accordance with paragraph (b)(6)(iii) of this section.

(ii) *Benefits Valuation Study.* If you are seeking a site-specific determination of best technology available for minimizing adverse environmental impact because of costs significantly greater than the benefits of meeting the applicable performance standards of § 125.103(b) at your facility, you must use a comprehensive methodology to fully value the impacts of impingement mortality and entrainment at your site and the benefits achievable by meeting the applicable performance standards. In addition to the valuation estimates, the benefit study must include the following:

(A) A description of the methodology(ies) used to value commercial, recreational, and ecological benefits (including any non-use benefits, if applicable);

(B) Documentation of the basis for any assumptions and quantitative estimates. If you plan to use an entrainment survival rate other than zero, you must

submit a determination of entrainment survival at your facility based on a study approved by the Director;

(C) An analysis of the effects of significant sources of uncertainty on the results of the study; and

(D) If requested by the Director, a peer review of the items you submit in the Benefits Valuation Study. You must choose the peer reviewers in consultation with the Director who may consult with EPA and Federal, State, and Tribal fish and wildlife management agencies with responsibility for fish and wildlife potentially affected by your cooling water intake structure. Peer reviewers must have appropriate qualifications depending upon the materials to be reviewed.

(E) A narrative description of any non-monetized benefits that would be realized at your site if you were to meet the applicable performance standards and a qualitative assessment of their magnitude and significance.

(iii) *Site-Specific Technology Plan.* Based on the results of the Comprehensive Cost Evaluation Study required by paragraph (b)(6)(i) of this section, and the Benefits Valuation Study required by paragraph (b)(6)(ii) of this section, if applicable, you must submit a Site-Specific Technology Plan to the Director for review and approval. The plan must contain the following information:

(A) A narrative description of the design and operation of all existing and proposed design and construction technologies, operational measures, and/or restoration measures that you have selected in accordance with § 125.103(a)(5);

(B) An engineering estimate of the efficacy of the proposed and/or implemented design and construction technologies or operational measures, and/or restoration measures. This estimate must include a site-specific evaluation of the suitability of the technologies or operational measures for reducing impingement mortality and/or entrainment (as applicable) of all life stages of fish and shellfish based on representative studies (*e.g.*, studies that have been conducted at cooling water intake structures located in the same waterbody type with similar biological characteristics) and, if applicable, site-specific technology prototype or pilot studies. If restoration measures will be used, you must provide a Restoration Plan that includes the elements described in paragraph (b)(5) of this section.

(C) A demonstration that the proposed and/or implemented design and construction technologies, operational measures, and/or restoration measures achieve an efficacy that is as close as practicable to the applicable performance standards of § 125.103(b) without resulting in costs significantly greater than either the costs considered by the Administrator for a facility like yours in establishing the applicable performance standards, or as appropriate, the benefits of complying with the applicable performance standards at your facility;

(D) Design and engineering calculations, drawings, and estimates prepared by a qualified professional to support the elements of the Plan.

(7) *Verification Monitoring Plan.* If you comply using compliance alternatives in § 125.103(a)(2), (3), (4), or (5) using design and construction technologies and/or operational measures, you must submit a plan to conduct, at a minimum, two years of monitoring to verify the full-scale performance of the proposed or already implemented technologies and/or operational measures. The verification study must begin once the design and construction technologies and/or operational measures are installed and continue for a period of time that is sufficient to demonstrate to the Director whether the facility is meeting the applicable performance standards in § 125.103(b) or site-specific requirements developed pursuant to § 125.103(a)(5). The plan must provide the following:

(i) Description of the frequency and duration of monitoring, the parameters to be monitored, and the basis for determining the parameters and the frequency and duration for monitoring. The parameters selected and duration and frequency of monitoring must be consistent with any methodology for assessing success in meeting applicable performance standards in your Technology Installation and Operation Plan as required by paragraph (b)(4)(ii) of this section.

(ii) A proposal on how naturally moribund fish and shellfish that enter the cooling water intake structure would be identified and taken into account in assessing success in meeting the performance standards in § 125.103(b) or site-specific requirements developed pursuant to § 125.103(a)(5).

(iii) A description of the information to be included in a biennial status report to the Director.

OPTION B FOR PARAGRAPH (b)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 100 MGD or more, located on oceans, estuaries, tidal rivers, or one of the Great Lakes]:

(b) *Comprehensive Demonstration Study.* The purpose of the Comprehensive Demonstration Study (Study) is to characterize impingement mortality and entrainment, to describe the operation of your cooling water intake structures, and to confirm that the technologies, operational measures, and/or restoration measures you have selected and installed, or will install, at your facility meet the applicable requirements of § 125.103. All facilities except those that have met the applicable requirements in accordance with §§ 125.103(a)(1)(i), 125.103(a)(1)(ii), and 125.103(a)(4) must submit all applicable portions of the Comprehensive Demonstration Study to the Director in accordance with paragraph (a) of this section. Facilities that meet the requirements in § 125.103(a)(1)(i) by reducing their flow commensurate with a closed-cycle, recirculating system are not required to submit a Comprehensive Demonstration Study. Facilities that meet the requirements in § 125.103(a)(1)(ii) by reducing their design intake velocity to 0.5 ft/sec or less are required to submit a Study only for the entrainment requirements. Facilities that meet the requirements in § 125.103(a)(4) and have installed and properly operate and maintain an approved design and construction technology (in accordance with § 125.108) are required to submit only the Technology Installation and Operation Plan in paragraph (b)(4) of this section and the Verification Monitoring Plan in paragraph (b)(7) of this section. The Comprehensive Demonstration Study must include:

(1) *Proposal for Information Collection.* You must submit to the Director for review and comment a description of the information you will use to support your Study. The Proposal for Information Collection must be submitted prior to the start of information collection activities, but you may initiate such activities prior to receiving comment from the Director. The proposal must include:

(i) A description of the proposed and/or implemented technologies, operational measures, and/or restoration measures to be evaluated in the Study;

(ii) A list and description of any historical studies characterizing impingement mortality and entrainment and/or the physical and biological conditions in the vicinity of the cooling water intake structures and their relevance to this proposed Study. If you propose to use existing data, you must demonstrate the extent to which the data are representative of current conditions and that the data were

collected using appropriate quality assurance/quality control procedures;

(iii) A summary of any past or ongoing consultations with appropriate Federal, State, and Tribal fish and wildlife agencies that are relevant to this Study and a copy of written comments received as a result of such consultations; and

(iv) A sampling plan for any new field studies you propose to conduct in order to ensure that you have sufficient data to develop a scientifically valid estimate of impingement mortality and entrainment at your site. The sampling plan must document all methods and quality assurance/quality control procedures for sampling and data analysis. The sampling and data analysis methods you propose must be appropriate for a quantitative survey and include consideration of the methods used in other studies performed in the source waterbody. The sampling plan must include a description of the study area (including the area of influence of the cooling water intake structure(s)), and provide a taxonomic identification of the sampled or evaluated biological assemblages (including all life stages of fish and shellfish).

(2) *Impingement Mortality and Entrainment Characterization Study.* You must submit to the Director an Impingement Mortality and Entrainment Characterization Study whose purpose is to provide information to support the development of a calculation baseline for evaluating impingement mortality and entrainment and to characterize current impingement mortality and entrainment. The Impingement Mortality and Entrainment Characterization Study must include the following, in sufficient detail to support development of the other elements of the Comprehensive Demonstration Study:

(i) Taxonomic identifications of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal Law (including threatened or endangered species) that are in the vicinity of the cooling water intake structure(s) and are susceptible to impingement and entrainment;

(ii) A characterization of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal Law (including threatened or endangered species) identified pursuant to paragraph (b)(2)(i) of this section, including a description of the abundance and temporal and spatial characteristics in the vicinity of the cooling water intake structure(s), based on sufficient data to characterize annual, seasonal, and diel variations in impingement mortality and entrainment (*e.g.*, related to climate and weather differences, spawning, feeding and water column migration). These may include historical data that are representative of the current operation of your facility and of biological conditions at the site;

(iii) Documentation of the current impingement mortality and entrainment of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal Law (including threatened or endangered species) identified pursuant to paragraph (b)(2)(i) of this section and an estimate of impingement mortality and entrainment to be used as the calculation baseline. The documentation may include historical data that are representative of the current operation of your facility and of biological conditions at the site. Impingement mortality and entrainment samples to support the calculations required in paragraphs (b)(3)(i)(C) and (b)(4)(iii) of this section must be collected during periods of representative operational flows for the cooling water intake structure and the flows associated with the samples must be documented;

(3) *Technology and Compliance Assessment Information*—(i) *Design and Construction Technology Plan.* If you choose to use design and construction technologies and/or operational measures, in whole or in part to meet the requirements of § 125.103(a)(2) or (3), you must submit a Design and Construction Technology Plan to the Director for review and approval. The plan must explain the technologies and/or operational measures you have in place and/or have selected to meet the requirements in § 125.103. (Examples of potentially appropriate technologies may include, but are not limited to, wedgewire screens, fine mesh screens, fish handling and return systems, barrier nets, aquatic filter barrier systems, vertical and/or lateral relocation of the cooling water intake structure, and enlargement of the cooling water intake structure opening to reduce velocity. Examples of potentially appropriate operational measures may include, but are not limited to, seasonal shutdowns, reductions in flow, and continuous or more frequent rotation of traveling screens.) The plan must contain the following information:

(A) A narrative description of the design and operation of all design and construction technologies and/or operational measures (existing and proposed), including fish handling and return systems, that you have in place or will use to meet the requirements to reduce impingement mortality of those species expected to be most susceptible to impingement, and information that demonstrates the efficacy of the technologies and/or operational measures for those species;

(B) A narrative description of the design and operation of all design and construction technologies and/or operational measures (existing and proposed) that you have in place or will use to meet the requirements to reduce entrainment of those species expected to be the most susceptible to entrainment and information that demonstrates the efficacy of the technologies and/or operational measures for those species;

(C) Calculations of the reduction in impingement mortality and entrainment of all life stages of fish and shellfish that would be achieved by the technologies and/or operational measures you have selected based on the Impingement Mortality and Entrainment Characterization Study in paragraph (b)(2) of this section. In determining compliance with any requirements to reduce impingement mortality and entrainment, you must assess the total reduction in impingement mortality and entrainment against the calculation baseline determined in accordance with paragraph (b)(2) of this section. Reductions in impingement mortality and entrainment from this calculation baseline as a result of any design and construction technologies and/or operational measures already implemented at your facility should be added to the reductions expected to be achieved by any additional design and/or construction technologies and operational measures that will be implemented, and any increases in fish and shellfish within the waterbody attributable to your restoration measures. Facilities that recirculate a portion of their flow, but do not reduce flow sufficiently to satisfy the compliance option in § 125.103(a)(1)(i) may take into account the reduction in impingement mortality and entrainment associated with the reduction in flow when determining the net reduction associated with existing design and construction technologies and/or operational measures. This estimate must include a site-specific evaluation of the suitability of the technologies and/or operational measures based on the species that are found at the site, and may be determined based on representative studies (*i.e.*, studies that have been conducted at a similar facility's cooling water intake structures located in the same waterbody type with similar biological characteristics) and/or site-specific technology prototype or pilot studies; and

(D) Design and engineering calculations, drawings, and estimates prepared by a qualified professional to support the descriptions required by paragraphs (b)(3)(i)(A) and (B) of this section.

(ii) *Technology Installation and Operation Plan.* If you choose the compliance alternative in § 125.103(a)(2), (3), (4), or (5) and use design and construction technologies and/or operational measures in whole or in part to comply with the applicable requirements of § 125.103, you must submit the following information with your application for review and approval by the Director:

(A) A schedule for the installation and maintenance of any new design and construction technologies. Any downtime of generating units to accommodate installation and/or maintenance of these technologies should be scheduled to coincide with otherwise necessary downtime (*e.g.*, for repair, overhaul, or routine maintenance of the generating units) to the extent practicable. Where additional downtime is required, you may coordinate scheduling of this downtime with the North American Electric Reliability Council and/or other generators in your area to ensure that impacts to reliability and supply are minimized;

(B) List of operational and other parameters to be monitored, and the location and frequency that you will monitor them;

(C) List of activities you will undertake to ensure to the degree practicable the efficacy of installed design and construction technologies and operational measures, and your schedule for implementing them;

(D) A schedule and methodology for assessing the efficacy of any installed design and construction technologies and operational measures in meeting applicable performance standards or site-specific requirements, including an adaptive management plan for revising design and construction technologies, operational measures, operation and maintenance requirements, and/or monitoring requirements if your assessment indicates that applicable performance standards or site-specific requirements are not being met; and

(E) If you choose the compliance alternative in § 125.103(a)(4), documentation that the appropriate site conditions in § 125.108(b) exist at your facility.

(4) *Restoration Plan.* If you propose to use restoration measures, in whole or in part, to meet the applicable requirements in § 125.103, you must submit the following information with your application for review and approval by the Director. You must address species of concern identified in consultation with Federal, State, and Tribal fish and wildlife management agencies with responsibility for fisheries and wildlife potentially affected by your cooling water intake structure(s).

(i) A demonstration to the Director that you have evaluated the use of design and construction technologies and/or operational measures for your facility and an explanation of how you determined that restoration would be more feasible, cost-effective, or environmentally desirable;

(ii) A narrative description of the design and operation of all restoration measures (existing and proposed) that you have in place or will use to produce fish and shellfish;

(iii) Quantification of the ecological benefits of the proposed restoration measures. You must use information from the Impingement Mortality and Entrainment Characterization Study required in paragraph (b)(2) of this section, and any other available and appropriate information, to estimate the reduction in fish and shellfish impingement mortality and entrainment that would be necessary for your facility to comply with § 125.103(c)(2). You must then calculate the production of fish and shellfish that you will achieve with the restoration measures you will or have already installed. You must include a discussion of the nature and magnitude of uncertainty associated with the performance of these restoration measures. You must also include a discussion of the time frame within which these ecological benefits are expected to accrue;

(iv) Design calculations, drawings, and estimates to document that your proposed restoration measures in combination with design and construction technologies and/or operational measures, or alone, will meet the requirements of § 125.103(c)(2). If the restoration measures address the same fish and shellfish species identified in the Impingement Mortality and Entrainment Characterization Study (in-kind restoration), you must demonstrate that the restoration measures will produce a level of these fish and shellfish substantially similar to that which would result from meeting applicable performance standards in § 125.103(b), or that they will satisfy site-specific requirements established pursuant to § 125.103(a)(5). If the restoration measures address fish and shellfish species different from those identified in the Impingement Mortality and Entrainment Characterization Study (out-of-kind restoration), you must demonstrate that the restoration measures produce ecological benefits substantially similar to or greater than those that would be realized through in-kind restoration. Such a demonstration should be based on a watershed approach to restoration planning and consider applicable multi-agency watershed restoration plans, site-specific peer-reviewed ecological studies, and/or consultation with appropriate Federal, State, and Tribal fish and wildlife management agencies.

(v) A plan utilizing an adaptive management method for implementing, maintaining, and demonstrating the efficacy of the restoration measures you have selected and for determining the extent to which the restoration measures, or the restoration measures in combination with design and construction technologies and operational measures, have met the applicable requirements of § 125.103(c)(2). The plan must include:

(A) A monitoring plan that includes a list of the restoration parameters that will be monitored, the frequency at which you will monitor them, and success criteria for each parameter;

(B) A list of activities you will undertake to ensure the efficacy of the restoration measures, a description of the linkages between these activities and the items in paragraph (b)(4)(v)(A) of this section, and an implementation schedule; and

(C) A process for revising the Restoration Plan as new information, including monitoring data, becomes available, if the applicable requirements under § 125.103(c)(2) are not being met.

(vi) A summary of any past or ongoing consultation with appropriate Federal, State, and Tribal fish and wildlife management agencies on your use of restoration measures including a copy of any written comments received as a result of such consultations;

(vii) If requested by the Director, a peer review of the items you submit for the Restoration Plan. You must choose the peer reviewers in consultation with the Director who may consult with EPA and Federal, State, and Tribal fish and wildlife management agencies with responsibility for fish and wildlife potentially affected by your cooling water intake structure(s). Peer reviewers must have appropriate qualifications (*e.g.*, in the fields of geology, engineering, and/or biology, *etc.*) depending upon the materials to be reviewed; and

(viii) A description of the information to be included in a biennial status report to the Director.

(5) *Information to Support Site-specific Determination of Best*

Technology Available for Minimizing Adverse Environmental Impact. If you have requested a site-specific determination of best technology available for minimizing adverse environmental impact pursuant to § 125.103(a)(5)(i) because of costs significantly greater than those considered by the Administrator for a facility like yours in establishing the applicable performance standards of § 125.103(b), you are required to provide to the Director the information specified in paragraphs (b)(5)(i) and (b)(5)(iii) of this section. If you have requested a site-specific determination of best technology available for minimizing adverse environmental impact pursuant to § 125.103(a)(5)(ii) because of costs significantly greater than the benefits of meeting the applicable performance standards of § 125.103(b) at your facility, you must provide the information specified in paragraphs (b)(5)(i), (b)(5)(ii), and (b)(5)(iii) of this section:

(i) *Comprehensive Cost Evaluation Study.* You must perform and submit the results of a Comprehensive Cost Evaluation Study, that includes:

(A) Engineering cost estimates in sufficient detail to document the costs of implementing design and construction technologies, operational measures, and/or restoration measures at your facility that would be needed to meet the applicable performance standards of § 125.103(b);

(B) A demonstration that the costs documented in paragraph (b)(5)(i)(A) of this section significantly exceed either those considered by the Administrator for a facility like yours in establishing the applicable performance standards or the benefits of meeting the applicable performance standards at your facility; and

(C) Engineering cost estimates in sufficient detail to document the costs of implementing the design and construction technologies, operational measures, and/or restoration measures in your Site-Specific Technology Plan developed in accordance with paragraph (b)(5)(iii) of this section.

(ii) *Benefits Valuation Study.* If you are seeking a site-specific determination of best technology available for minimizing adverse environmental impact because of costs significantly greater than the benefits of meeting the applicable performance standards of § 125.103(b) at your facility, you must use a comprehensive methodology to fully value the impacts of impingement mortality and entrainment at your site and the benefits achievable by meeting the applicable performance standards. In addition to the valuation estimates, the benefit study must include the following:

(A) A description of the methodology(ies) used to value commercial, recreational, and ecological benefits (including any non-use benefits, if applicable);

(B) Documentation of the basis for any assumptions and quantitative estimates. If you plan to use an entrainment survival rate other than zero, you must submit a determination of entrainment survival at your facility based on a study approved by the Director;

(C) An analysis of the effects of significant sources of uncertainty on the results of the study; and

(D) If requested by the Director, a peer review of the items you submit in the Benefits Valuation Study. You must choose the peer reviewers in consultation with the Director who may consult with EPA and Federal, State, and Tribal fish and wildlife management agencies with responsibility for fish and wildlife potentially affected by your cooling water intake structure. Peer reviewers must have appropriate qualifications depending upon the materials to be reviewed.

(E) A narrative description of any non-monetized benefits that would be realized at your site if you were to meet the applicable performance standards and a qualitative assessment of their magnitude and significance.

(iii) *Site-Specific Technology Plan.* Based on the results of the Comprehensive Cost Evaluation Study required by paragraph (b)(5)(i) of this section, and the Benefits Valuation Study required by paragraph (b)(5)(ii) of this section, if applicable, you must submit a Site-Specific Technology Plan to the Director for review and approval. The plan must contain the following information:

(A) A narrative description of the design and operation of all existing and proposed design and construction technologies, operational measures, and/or restoration measures that you have selected in accordance with § 125.103(a)(5);

(B) An engineering estimate of the efficacy of the proposed and/or implemented design and construction technologies or operational measures, and/or restoration measures. This estimate must include a site-specific evaluation of the suitability of the technologies or operational measures for reducing impingement mortality and entrainment of all life stages of fish and shellfish based on representative studies (*e.g.*, studies that have been conducted at cooling water intake structures located in the same waterbody type with similar biological characteristics) and, if applicable, site-specific technology prototype or pilot studies. If restoration measures will be used, you must provide a Restoration Plan that includes the elements described in paragraph (b)(4) of this section.

(C) A demonstration that the proposed and/or implemented design and construction technologies, operational measures, and/or restoration measures achieve an efficacy that is as close as practicable to the applicable performance standards of § 125.103(b) without resulting in costs significantly greater than either the costs considered by the Administrator for a facility like yours in establishing the applicable performance standards, or as appropriate, the benefits of complying with the applicable performance standards at your facility;

(D) Design and engineering calculations, drawings, and estimates prepared by a qualified professional to support the elements of the Plan.

(6) *Verification Monitoring Plan.* If you comply using compliance alternatives in § 125.103(a)(2), (3), (4), or (5) using design and construction technologies and/or operational measures, you must submit a plan to conduct, at a minimum, two years of monitoring to verify the full-scale performance of the proposed or already implemented technologies and/or operational measures. The verification study must begin once the design and construction technologies and/or operational measures are installed and continue for a period of time that is sufficient to demonstrate to the Director whether the facility is meeting the applicable performance standards in § 125.103(b) or site-specific requirements developed pursuant to § 125.103(a)(5). The plan must provide the following:

(i) Description of the frequency and duration of monitoring, the parameters to be monitored, and the basis for determining the parameters and the frequency and duration for monitoring. The parameters selected and duration and frequency of monitoring must be consistent with any methodology for assessing success in meeting applicable performance standards in your Technology Installation and Operation Plan as required by paragraph (b)(3)(ii) of this section.

(ii) A proposal on how naturally moribund fish and shellfish that enter the cooling water intake structure would be identified and taken into account in assessing success in meeting the performance standards in § 125.103(b).

(iii) A description of the information to be included in a biennial status report to the Director.

§ 125.105 As an owner or operator of a Phase III existing facility, what monitoring must I perform?

OPTION A FOR § 125.105—[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 50 MGD or more, located on any waterbody type or the regulatory option that defines a Phase III existing facility as one with design intake flows 200 MGD or more, located on any waterbody type]:

As an owner or operator of a Phase III existing facility, you must perform monitoring, as applicable, in accordance with the Technology Installation and Operation Plan required by § 125.104(b)(4)(ii), the Restoration Plan required by § 125.104(b)(5), the Verification Monitoring Plan required by § 125.104(b)(7), and any additional monitoring specified by the Director to demonstrate compliance with the applicable requirements of § 125.103.

OPTION B FOR § 125.105—[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 100 MGD or more, located on oceans, estuaries, tidal rivers, or one of the Great Lakes]:

As an owner or operator of a Phase III existing facility, you must perform monitoring, as applicable, in accordance with the Technology Installation and Operation Plan required by § 125.104(b)(3)(ii), the Restoration Plan required by § 125.104(b)(4), the Verification Monitoring Plan required by § 125.104(b)(6), and any additional monitoring specified by the Director to demonstrate compliance with the applicable requirements of § 125.103.

§ 125.106 As an owner or operator of a Phase III existing facility, what records must I keep and what information must I report?

As an owner or operator of a Phase III existing 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 of § 125.103, any supplemental information developed under § 125.104, and any compliance monitoring data submitted under § 125.105, for a period of at least three (3) years from date of permit issuance. The Director may require that these records be kept for a longer period.

(b) You must submit a status report to the Director for review every two years that includes appropriate monitoring data and other information as specified by the Director in accordance with § 125.107(b)(5).

§ 125.107 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) and § 125.104 before each permit renewal or reissuance.

(1) You must review and comment on the Proposal for Information Collection submitted by the facility in accordance with § 125.104(a)(1). You are encouraged to provide comments expeditiously so that the permit applicant can make responsive modifications to its information gathering activities. If a facility submits a request in accordance with § 125.104(a)(2)(ii) for an alternate schedule for submitting the information required in § 125.104, you must approve a schedule that is as expeditious as practicable, but does not extend beyond [3 years and 180 days from publication of the final rule] for Phase III existing facilities. If a facility submits a request in accordance with § 125.104(a)(3) to reduce the information about their cooling water intake structures and the source waterbody required to be submitted in their permit application (other than with the first permit application [60 days from publication of the final rule] for Phase III existing facilities), you must approve the request within 60 days if conditions at the facility and in the waterbody remain substantially unchanged since the previous application.

(2) After receiving the permit application from the owner or operator of a Phase III existing facility, you must determine which of the requirements specified in § 125.103 apply to the facility. In addition, you must review materials to determine compliance with the applicable requirements.

(3) At each permit renewal, you must review the application materials and monitoring data to determine whether new or revised requirements for design and construction technologies, operational measures, or restoration measures should be included in the permit to meet the applicable performance standards in § 125.103(b) or alternative site-specific requirements established pursuant to § 125.103(a)(5).

OPTION A FOR PARAGRAPH (b)—[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 50 MGD or more, located on any waterbody type or the regulatory option that defines a Phase III existing facility as one with design intake flows 200 MGD or more, located on any waterbody type]:

(b) *Permitting Requirements.* Section 316(b) requirements are implemented for a facility through an NPDES permit. As the Director, you must consider the information submitted by the Phase III existing facility in its permit application, and determine the appropriate requirements and conditions to include in the permit based on the compliance alternatives in § 125.103(a). The following requirements must be included in each permit:

(1) *Cooling Water Intake Structure Requirements.* The permit conditions must include the requirements that implement the applicable provisions of § 125.103. You must evaluate the performance of the design and construction technologies, operational measures, and/or restoration measures proposed and implemented by the facility and require additional or different design and construction technologies, operational measure, and/or restoration measures, and/or improved operation and maintenance of existing technologies and measures, if needed to meet the applicable performance standards, restoration requirements, or alternative site-specific requirements. In determining compliance with the performance standards for facilities proposing to increase withdrawals of cooling water from a lake (other than a Great Lake) or a reservoir in § 125.103(b)(3), you must consider anthropogenic factors (those not considered ''natural'') unrelated to the Phase III existing facility's cooling water intake structures 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 deeper bottom layers). As the Director, you must coordinate with appropriate Federal, State, or Tribal fish and wildlife management agencies to determine if any disruption of the natural thermal stratification resulting from the proposed increased withdrawal of cooling water does not adversely affect the management of fisheries. Specifically:

(i) You must review and approve the Design and Construction Technology Plan required in § 125.104(b)(4) to evaluate the suitability and feasibility of the design and construction technology and/or operational measures proposed to meet the performance standards in

§ 125.103(b) or site-specific requirements developed pursuant to § 125.103(a)(5).

(ii) If the facility proposes restoration measures in accordance with § 125.103(c), you must review and approve the Restoration Plan required under § 125.104(b)(5) to determine whether the proposed measures, alone or in combination with design and construction technologies and/or operational measures, will meet the requirements under § 125.103(c).

(iii) In each reissued permit, you must include a condition in the permit requiring the facility to reduce impingement mortality and entrainment (or to increase fish production, if applicable) commensurate with the efficacy at the facility of the installed design and construction technologies, operational measures, and/or restoration measures.

(iv) If the facility implements design and construction technologies and/or operational measures and requests that compliance with the requirements in § 125.103 be measured for the first permit term (or subsequent permit terms, if applicable) employing the Technology Installation and Operation Plan in accordance with § 125.104(b)(4)(ii), you must review the Technology Installation and Operation Plan to ensure it meets the requirements of § 125.104(b)(4)(ii). If the Technology Installation and Operation Plan meets the requirements of § 125.104(b)(4)(ii), you must approve the Technology Installation and Operation Plan and require the facility to meet the terms of the plan including any revision to the plan that may be necessary if applicable performance standards or alternative site-specific requirements are not being met. If the facility implements restoration measures and requests that compliance with the requirements in § 125.103 be measured for the first permit term (or subsequent permit terms, if applicable) employing a Restoration Plan in accordance with § 125.104(b)(5), you must review the Restoration Plan to ensure it meets the requirements of § 125.104(b)(5). If the Restoration Plan meets the requirements of § 125.104(b)(5), you must approve the plan and require the facility to meet the terms of the plan including any revision to the plan that may be necessary if applicable performance standards or site-specific requirements are not being met. In determining whether to approve a Technology Installation and Operation Plan or Restoration Plan, you must evaluate whether the design and construction technologies, operational measures, and/or restoration measures the facility has installed, or proposes to install, can reasonably be expected to meet the applicable performance standards in § 125.103(b), restoration requirements in § 125.103(c)(2), and/or alternative site-specific requirements established pursuant to § 125.103(a)(5), and whether the Technology Installation and Operation Plan and/or Restoration Plan complies with the applicable requirements of § 125.104(b). In reviewing the Technology Installation and Operation Plan, you must approve any reasonable scheduling provisions that are designed to ensure that impacts to energy reliability and supply are minimized, in accordance with § 125.104(b)(4)(ii)(A). If the facility does not request that compliance with the requirements in § 125.103 be measured employing a Technology Installation and Operation Plan and/or Restoration Plan, or the facility has not been in compliance with the terms of its current Technology Installation and Operation Plan and/or Restoration Plan during the preceding permit term, you must require the facility to comply with the applicable performance standards in § 125.103(b), restoration requirement in § 125.103(c)(2), and/or alternative site-specific requirements developed pursuant to § 125.103(a)(5). In considering a permit application, you must review the performance of the design and construction technologies, operational measures, and/or restoration measures implemented and require additional or different design and construction technologies, operational measures, and/or restoration measures, and/or improved operation and maintenance of existing technologies and measures, if needed to meet the applicable performance standards, restoration requirements, and/or alternative site-specific requirements.

(v) You must review and approve the proposed Verification Monitoring Plan submitted under § 125.104(b)(7) (for design and construction technologies) and/or monitoring provisions of the Restoration Plan submitted under § 125.104(b)(5)(v) and require that the monitoring continue for a sufficient period of time to demonstrate whether the design and construction technology, operational measures, and/or restoration measures meet the applicable performance standards in § 125.103(b), restoration requirements in § 125.103(c)(2) and/or site-specific requirements established pursuant to § 125.103(a)(5).

(vi) If a facility requests requirements based on a site-specific determination of best technology available for minimizing adverse environmental impact, you must review the application materials submitted under § 125.104(b)(6) and any other information you may have, including quantitative and qualitative benefits, that would be relevant to a determination of whether alternative requirements are appropriate for the facility. If a facility submits a study to support entrainment survival at the facility, you must review and approve the results of that study. If you determine that alternative requirements are appropriate, you must make a site-specific determination of best technology available for minimizing adverse environmental impact in accordance with § 125.103(a)(5). You, as the Director, may request revisions to the information submitted by the facility in accordance with § 125.104(b)(6) if it does not provide an adequate basis for you to make this determination. Any alternative site-specific requirements established based on new and/or existing design and construction technologies, operational measures, and/or restoration measures, must achieve an efficacy that is, in your judgment, as close as practicable to the applicable performance standards of § 125.103(b) without resulting in costs that are significantly greater than the costs considered by the Administrator for a like facility in establishing the applicable performance standards in § 125.103(b), determined in accordance with § 125.103(a)(5)(i)(A) through (F), or the benefits of complying with the applicable performance standards at the facility. A ''like facility'' is one that is subject to the same requirements as those that would otherwise be applicable to the facility seeking a site-specific determination. In other words, ''like facilities'' for Phase III existing facilities include only other Phase III existing facilities; and

(vii) You must review the proposed methods for assessing success in meeting applicable performance standards and/or restoration requirements submitted by the facility under § 125.104(b)(4)(ii)(D) and/or (b)(5)(v)(A), evaluate those and other available methods, and specify how assessment of success in meeting the performance standards and/or restoration requirements must be determined including the averaging period for determining the percent reduction in impingement mortality and entrainment and/or the production of fish and shellfish. Compliance for facilities who request that compliance be measured employing a Technology Installation and Operation Plan and/or Restoration Plan must be determined in accordance with § 125.107(b)(1)(iv).

(2) *Monitoring Conditions.* You must require the facility to perform

monitoring in accordance with the Technology Installation and Operation Plan in § 125.104(b)(4)(ii), the Restoration Plan required by § 125.104(b)(5), if applicable, and the Verification Monitoring Plan required by § 125.104(b)(7). In determining any additional applicable monitoring requirements in accordance with § 125.105, you must consider the facility's Verification Monitoring, Technology Installation and Operation, and/or Restoration Plans, as appropriate. You may modify the monitoring program based on changes in physical or biological conditions in the vicinity of the cooling water intake structure.

(3) *Record Keeping and Reporting.* At a minimum, the permit must require the facility to report and keep records specified in § 125.106.

(4) *Design and Construction Technology Approval.* (i) For a facility that chooses to demonstrate that it has installed and properly operate and maintain a design and construction technology approved in accordance with § 125.108, the Director must review and approve the information submitted in the Technology Installation and Operation Plan in § 125.104(b)(4)(ii) and determine if it meets the criteria in § 125.108.

(ii) If a person requests approval of a technology under § 125.108(b), the Director must review and approve the information submitted and determine its suitability for widespread use at facilities with similar site conditions in its jurisdiction with minimal study. As the Director, you must evaluate the adequacy of the technology when installed in accordance with the required design criteria and site conditions to consistently meet the performance standards in § 125.103. You, as the Director, may only approve a technology following public notice and consideration of comment regarding such approval.

(5) *Biennial Status Report.* You must specify monitoring data and other information to be included in a status report every two years. The other information may include operation and maintenance records, summaries of adaptive management activities, or any other information that is relevant to determining compliance with the terms of the facility's Technology Operation and Installation Plan and/or Restoration Plan.

OPTION B FOR PARAGRAPH (b)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 100 MGD or more, located on oceans, estuaries, tidal rivers, or one of the Great Lakes]:

(b) *Permitting Requirements.* Section 316(b) requirements are implemented for a facility through an NPDES permit. As the Director, you must consider the information submitted by the Phase III existing facility in its permit application, and determine the appropriate requirements and conditions to include in the permit based on the compliance alternatives in § 125.103(a). The following requirements must be included in each permit:

(1) *Cooling Water Intake Structure Requirements.* The permit conditions must include the requirements that implement the applicable provisions of § 125.103. You must evaluate the performance of the design and construction technologies, operational measures, and/or restoration measures proposed and implemented by the facility and require additional or different design and construction technologies, operational measure, and/or restoration measures, and/or improved operation and maintenance of existing technologies and measures, if needed to meet the applicable performance standards, restoration requirements, or alternative site-specific requirements. Specifically:

(i) You must review and approve the Design and Construction Technology Plan required in § 125.104(b)(3) to evaluate the suitability and feasibility of the design and construction technology and/or operational measures proposed to meet the performance standards in § 125.103(b) or site-specific requirements developed pursuant to § 125.103(a)(5).

(ii) If the facility proposes restoration measures in accordance with § 125.103(c), you must review and approve the Restoration Plan required under § 125.104(b)(4) to determine whether the proposed measures, alone or in combination with design and construction technologies and/or operational measures, will meet the requirements under § 125.103(c).

(iii) In each reissued permit, you must include a condition in the permit requiring the facility to reduce impingement mortality and entrainment (or to increase fish production, if applicable) commensurate with the efficacy at the facility of the installed design and construction technologies, operational measures, and/or restoration measures.

(iv) If the facility implements design and construction technologies and/or operational measures and requests that compliance with the requirements in § 125.103 be measured for the first permit term (or subsequent permit terms, if applicable) employing the Technology Installation and Operation Plan in accordance with § 125.104(b)(3)(ii), you must review the Technology Installation and Operation Plan to ensure it meets the requirements of § 125.104(b)(3)(ii). If the Technology Installation and Operation Plan meets the requirements of § 125.104(b)(3)(ii), you must approve the Technology Installation and Operation Plan and require the facility to meet the terms of the plan including any revision to the plan that may be necessary if applicable performance standards or alternative site-specific requirements are not being met. If the facility implements restoration measures and requests that compliance with the requirements in § 125.103 be measured for the first permit term (or subsequent permit terms, if applicable) employing a Restoration Plan in accordance with § 125.104(b)(4), you must review the Restoration Plan to ensure it meets the requirements of § 125.104(b)(4). If the Restoration Plan meets the requirements of § 125.104(b)(4), you must approve the plan and require the facility to meet the terms of the plan including any revision to the plan that may be necessary if applicable performance standards or site-specific requirements are not being met. In determining whether to approve a Technology Installation and Operation Plan or Restoration Plan, you must evaluate whether the design and construction technologies, operational measures, and/or restoration measures the facility has installed, or proposes to install, can reasonably be expected to meet the applicable performance standards in § 125.103(b), restoration requirements in § 125.103(c)(2), and/or alternative site-specific requirements established pursuant to § 125.103(a)(5), and whether the Technology Installation and Operation Plan and/or Restoration Plan complies with the applicable requirements of § 125.104(b). In reviewing the Technology Installation and Operation Plan, you must approve any reasonable scheduling provisions that are designed to ensure that impacts to energy reliability and supply are minimized, in accordance with § 125.104(b)(3)(ii)(A). If the facility does not request that compliance with the requirements in § 125.103 be measured employing a Technology Installation and Operation Plan and/or Restoration Plan, or the facility has not been in compliance with the terms of its current Technology Installation and Operation Plan and/or Restoration Plan during the preceding permit term, you must require

the facility to comply with the applicable performance standards in § 125.103(b), restoration requirement in § 125.103(c)(2), and/or alternative site-specific requirements developed pursuant to § 125.103(a)(5). In considering a permit application, you must review the performance of the design and construction technologies, operational measures, and/or restoration measures implemented and require additional or different design and construction technologies, operational measures, and/or restoration measures, and/or improved operation and maintenance of existing technologies and measures, if needed to meet the applicable performance standards, restoration requirements, and/or alternative site-specific requirements.

(v) You must review and approve the proposed Verification Monitoring Plan submitted under § 125.104(b)(6) (for design and construction technologies) and/or monitoring provisions of the Restoration Plan submitted under § 125.104(b)(4)(v) and require that the monitoring continue for a sufficient period of time to demonstrate whether the design and construction technology, operational measures, and/or restoration measures meet the applicable performance standards in § 125.103(b), restoration requirements in § 125.103(c)(2) and/or site-specific requirements established pursuant to § 125.103(a)(5).

(vi) If a facility requests requirements based on a site-specific determination of best technology available for minimizing adverse environmental impact, you must review the application materials submitted under § 125.104(b)(5) and any other information you may have, including quantitative and qualitative benefits, that would be relevant to a determination of whether alternative requirements are appropriate for the facility. If a facility submits a study to support entrainment survival at the facility, you must review and approve the results of that study. If you determine that alternative requirements are appropriate, you must make a site-specific determination of best technology available for minimizing adverse environmental impact in accordance with § 125.103(a)(5). You, as the Director, may request revisions to the information submitted by the facility in accordance with § 125.104(b)(5) if it does not provide an adequate basis for you to make this determination. Any alternative site-specific requirements established based on new and/or existing design and construction technologies, operational measures, and/or restoration measures, must achieve an efficacy that is, in your judgment, as close as practicable to the applicable performance standards of § 125.103(b) without resulting in costs that are significantly greater than the costs considered by the Administrator for a like facility in establishing the applicable performance standards in § 125.103(b), determined in accordance with § 125.103(a)(5)(i)(A) through (F), or the benefits of complying with the applicable performance standards at the facility. A ''like facility'' is one that is subject to the same requirements as those that would otherwise be applicable to the facility seeking a site-specific determination. In other words, ''like facilities'' for Phase III existing facilities include only other Phase III existing facilities; and

(vii) You must review the proposed methods for assessing success in meeting applicable performance standards and/or restoration requirements submitted by the facility under § 125.104(b)(3)(ii)(D) and/or (b)(4)(v)(A), evaluate those and other available methods, and specify how assessment of success in meeting the performance standards and/or restoration requirements must be determined including the averaging period for determining the percent reduction in impingement mortality and entrainment and/or the production of fish and shellfish. Compliance for facilities who request that compliance be measured employing a Technology Installation and Operation Plan and/or Restoration Plan must be determined in accordance with § 125.107(b)(1)(iv).

(2) *Monitoring Conditions.* You must require the facility to perform monitoring in accordance with the Technology Installation and Operation Plan in § 125.104(b)(3)(ii), the Restoration Plan required by § 125.104(b)(4), if applicable, and the Verification Monitoring Plan required by § 125.104(b)(6). In determining any additional applicable monitoring requirements in accordance with § 125.105, you must consider the monitoring facility's Verification Monitoring, Technology Installation and Operation, and/or Restoration Plans, as appropriate. You may modify the monitoring program based on changes in physical or biological conditions in the vicinity of the cooling water intake structure.

(3) *Record Keeping and Reporting.* At a minimum, the permit must require the facility to report and keep records specified in § 125.106.

(4) *Design and Construction Technology Approval.* (i) For a facility that chooses to demonstrate that it has installed and properly operate and maintain a design and construction technology approved in accordance with § 125.108, the Director must review and approve the information submitted in the Technology Installation and Operation Plan in § 125.104(b)(3)(ii) and determine if it meets the criteria in § 125.108.

(ii) If a person requests approval of a technology under § 125.108(b), the Director must review and approve the information submitted and determine its suitability for widespread use at facilities with similar site conditions in its jurisdiction with minimal study. As the Director, you must evaluate the adequacy of the technology when installed in accordance with the required design criteria and site conditions to consistently meet the performance standards in § 125.103. You, as the Director, may only approve a technology following public notice and consideration of comment regarding such approval.

(5) *Biennial Status Report.* You must specify monitoring data and other information to be included in a status report every two years. The other information may include operation and maintenance records, summaries of adaptive management activities, or any other information that is relevant to determining compliance with the terms of the facility's Technology Operation and Installation Plan and/or Restoration Plan.

§ 125.108 What are Approved Design and Construction Technologies?

OPTION A FOR PARAGRAPH (a)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 50 MGD or more, located on any waterbody type or the regulatory option that defines a Phase III existing facility as one with design intake flows 200 MGD or more, located on any waterbody type]:

(a) The following technologies constitute approved design and construction technologies for purposes of § 125.103(a)(4):

(1) Submerged cylindrical wedgewire screen technology, if you meet the following conditions:

(i) Your cooling water intake structure is located in a freshwater river or stream;

(ii) Your cooling water intake structure is situated such that sufficient ambient counter currents exist to promote cleaning of the screen face;

(iii) Your maximum through-screen design intake velocity is 0.5 ft/s or less;

(iv) The slot size is appropriate for the size of eggs, larvae, and juveniles of all

fish and shellfish to be protected at the site; and

(v) Your entire main cooling water intake flow is directed through the technology. Small flows totaling less than 2 MGD for auxiliary cooling uses are excluded from this provision.

(2) A technology that has been approved in accordance with the process described in paragraph (b) of this section.

OPTION B FOR PARAGRAPH (a)—

[This language reflects the regulatory option that defines a Phase III existing facility as one with design intake flows of 100 MGD or more, located on oceans, estuaries, tidal rivers, or one of the Great Lakes]:

(a) A design and construction technology may be approved for use in accordance with the compliance alternative in § 125.103(a)(4). The technology must be approved in accordance with the process described in paragraph (b) of this section.

(b) You or any other interested person may submit a request to the Director that a technology be approved in accordance with the compliance alternative in § 125.103(a)(4) after providing the public with notice and an opportunity to comment on the request for approval of the technology. If the Director approves the technology, it may be used by all facilities with similar site conditions under the Director's jurisdiction. Requests for approval of a technology must be submitted to the Director and include the following information:

(1) A detailed description of the technology;

(2) A list of design criteria for the technology and site characteristics and conditions that each facility must have in order to ensure that the technology can consistently meet the appropriate impingement mortality and entrainment performance standards in § 125.103(b); and

(3) Information and data sufficient to demonstrate that facilities under the jurisdiction of the Director can meet the applicable impingement mortality and entrainment performance standards in § 125.103(b) if the applicable design criteria and site characteristics and conditions are present at the facility.

3. Add subpart N to part 125 to read as follows:

Subpart N—Requirements Applicable to Cooling Water Intake Structures for New Offshore Oil and Gas Extraction Facilities Under Section 316(b) of the Act

Sec.

Subpart N—Requirements Applicable to Cooling Water Intake Structures for New Offshore Oil and Gas Extraction Facilities Under Section 316(b) of the Act

§ 125.130 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 offshore oil and gas extraction 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 at these facilities. 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 offshore oil and gas extraction 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 offshore oil and gas extraction facilities that do not meet the threshold requirements regarding amount of water withdrawn or percentage of water withdrawn for cooling water purposes in § 125.131(a) must meet requirements determined by the Director 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.

§ 125.131 Who is subject to this subpart?

(a) This subpart applies to a new offshore oil and gas extraction facility if it meets all of the following criteria:

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

(2) It 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) It 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 offshore oil and gas extraction 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) Neither this subpart nor Subpart I applies to seafood processing vessels and offshore liquefied natural gas import terminals that are new facilities as defined in 40 CFR 125.83. Seafood processing vessels and offshore liquefied natural gas import terminals must meet requirements established by the Director on a case-by-case, best professional judgment (BPJ) basis.

§ 125.132 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.

§ 125.133 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.

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 another industrial process either before or after it is used for cooling is considered process water for the purposes of calculating the percentage of a new offshore oil and gas extraction facility's intake flow that is used for cooling purposes in § 125.131(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).

Fixed facility means a bottom founded offshore oil and gas extraction facility permanently attached to the seabed or subsoil of the outer continental shelf (*e.g.*, platforms, guyed towers, articulated gravity platforms) or a buoyant facility securely and substantially moored so that it cannot be moved without a special effort (*e.g.*, tension leg platforms, permanently moored semi-submersibles) and which is not intended to be moved during the production life of the well. This definition does not include mobile offshore drilling units (MODUs) (*e.g.*, drill ships, temporarily moored semi-submersibles, jack-ups, submersibles, tender-assisted rigs, and drill barges).

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.

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

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

Minimum ambient source water surface elevation means the mean low tidal water level for estuaries or oceans. The mean low tidal water level is the average height of the low water over at least 19 years.

New offshore oil and gas extraction facility means any building, structure, facility, or installation that:

(1) Meets the definition of a ''new source'' or ''new discharger'' in 40 CFR 122.2 and 122.29(b)(1) and (4);

(2) Is regulated by the Offshore and Coastal Subcategories of the Oil and Gas Extraction Point Source Category Effluent Guidelines in 40 CFR 435.10 or 40 CFR 435.40; and

(3) Commenced construction after [60 days from publication of the final rule].

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

Offshore liquefied natural gas (LNG) import terminal means any facility located in waters defined in 40 CFR 435.10 or 40 CFR 435.40 that liquefies, re-gasifies, transfers, or stores liquefied natural gas.

Sea chest means the underwater compartment or cavity within the facility or vessel hull or pontoon through which sea water is drawn in (for cooling and other purposes) or discharged.

Seafood processing vessel means any offshore or nearshore, floating, mobile, facility engaged in the processing of fresh, frozen, canned, smoked, salted or pickled seafood, seafood paste, mince, or meal.

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

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.

§ 125.134 As an owner or operator of a new offshore oil and gas extraction facility, what must I do to comply with this subpart?

(a)(1) The owner or operator of a new offshore oil and gas extraction facility must comply with:

(i) Track I in paragraph (b) or Track II in paragraph (c) of this section, if it is a fixed facility; or

(ii) Track I in paragraph (b) of this section, if it is *not* a fixed facility.

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

(b) *Track I requirements for new offshore oil and gas extraction facilities.* (1)(i) New offshore oil and gas extraction facilities that withdraw greater than 2 MGD, *do not* employ sea chests as cooling water intake structures, and are fixed facilities must comply with all of the requirements in paragraphs (b)(2) through (8) of this section.

(ii) New offshore oil and gas extraction facilities that withdraw greater than 2 MGD, employ sea chests as cooling water intake structures, and are fixed facilities must comply with the requirements in paragraphs (b)(2), (3), (4), (6), (7), and (8) of this section.

(iii) New offshore oil and gas extraction facilities that withdraw greater than 2 MGD and are *not* fixed facilities must comply with the requirements in paragraphs (b)(2), (4), (6), (7), and (8) of this section.

(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) 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 the Director determines that:

(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) 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) 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)(2) and (5) 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;

(6) You must submit the applicable application information required in 40 CFR 122.21(r) and § 125.136(b). If you are a fixed facility you must submit the information required in 40 CFR 122.21(r)(2) (except (r)(2)(iv)), (3), and (4) and § 125.136(b) of this subpart as part of your application. If you are a not a fixed facility, you must only submit the information required in 40 CFR 122.21(r)(2)(iv), (r)(3) (except r(3)(ii)) and § 125.136(b) as part of your application.

(7) You must implement the monitoring requirements specified in § 125.137;

(8) You must implement the recordkeeping requirements specified in § 125.138.

(c) *Track II requirements for new offshore oil and gas extraction facilities.* The owner or operator of a new offshore oil and gas extraction facility that is a fixed facility and 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 applicable requirements of paragraph (b)(2) and for fixed facilities without sea chests, paragraph (b)(5) of this section. This demonstration must include a showing that the impacts to fish and shellfish, including important forage and predator species will be comparable to those which would result if you were to implement the requirements of paragraph (b)(2) and for fixed facilities without sea chests, paragraph (b)(5) of this section. In identifying such species, the Director may consider information provided by any fishery management agency(ies) along with data and information from other sources.

(2) 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 § 125.136(c).

(4) You must implement the monitoring requirements specified in § 125.137.

(5) You must implement the record-keeping requirements specified in § 125.138.

(d) 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 offshore oil and gas extraction facility that the Director deems are reasonably necessary to comply with any provision of Federal or State law, including compliance with applicable state water quality standards (including designated uses, criteria, and antidegradation requirements).

§ 125.135 May alternative requirements be authorized?

(a) Any interested person may request that alternative requirements less stringent than those specified in § 125.134(a) through (d) be imposed in the permit. The Director may establish alternative requirements less stringent than the requirements of § 125.134(a) through (d) only if:

(1) There is an applicable requirement under § 125.134(a) through (d);

(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 water resources other than impingement or entrainment, or significant adverse impacts on 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 water resources other than impingement or entrainment, or significant adverse impacts on energy markets; and

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

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

§ 125.136 As an owner or operator of a new offshore oil and gas extraction 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 offshore oil and gas extraction facility, you must submit to the Director a statement that you intend to comply with either:

(i) The Track I requirements for new offshore oil and gas extraction facilities in § 125.134(b); or

(ii) If you are a fixed facility, the Track II requirements in § 125.134(c).

(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, if you are a fixed facility that chooses to comply under Track II, 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 § 125.134(b), you must collect and submit to the Director the information in paragraphs (b)(1) through (3) of this section.

(1) *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 § 125.134(b)(2):

(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 judgment using available hydrological data) and maximum head loss across the screens or other device.

(2) *Source waterbody flow information.* If you are a fixed facility and 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 in § 125.134(b)(3).

(3) *Design and Construction Technology Plan.* To comply with § 125.134(b)(4) and/or (5), if applicable, you must submit to the Director the following information in a Design and Construction Technology Plan:

(i) If the Director determines that additional impingement requirements should be included in your permit:

(A) Information to demonstrate whether or not you meet the criteria in § 125.134(b)(4);

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

(ii) New offshore oil and gas extraction facilities required to install design and construction technologies and/or operational measures must develop a plan explaining the technologies and measures you have selected. (Examples of appropriate technologies include, but are not limited to, increased opening to cooling water intake structure to decrease design intake velocity, wedgewire screens, fixed screens, velocity caps, location of cooling water intake opening in waterbody, *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, if applicable:

(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) To demonstrate compliance with 125.134(b)(5), if applicable, 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)(3)(iii)(A) and (B) of this section.

(c) *Application requirements for Track II.* If you are a fixed facility and have chosen to comply with the requirements of Track II in § 125.134(c) you must collect and submit the following information:

(1) *Source waterbody flow information.* 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 in § 125.134(c)(2);

(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 applicable requirements in § 125.134(b)

(i) To meet the ''comparable level'' requirement, you must demonstrate that:

(A) You have reduced impingement mortality of all life stages of fish and shellfish to 90 percent or greater of the reduction that would be achieved through the applicable requirements in § 125.134(b)(2); and

(B) If you are a facility without sea chests, you have minimized entrainment of entrainable life stages of fish and shellfish in accordance with § 125.134(b)(5);

(ii) 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 mortality and (if applicable) 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

(iii) 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, if applicable, 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 § 125.134(b)(2) and, for facilities without sea chests, § 125.134(b)(5) 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 (if applicable) 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 (if applicable) 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 § 125.134(b)(2) and, for facilities without sea chests, § 125.134(b)(5) of Track I. The efficacy projection must include a site-specific evaluation of technology(ies) suitability for reducing impingement mortality and (if applicable) 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) *Verification monitoring plan.* You must include in the Study 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 mortality and (if applicable) entrainment to the level documented in paragraph (c)(2)(iii)(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 § 125.134(c), and that the operation of the technology has been optimized.

§ 125.137 As an owner or operator of a new offshore oil and gas extraction facility, must I perform monitoring?

As an owner or operator of a new offshore oil and gas extraction facility, you will be required to perform monitoring to demonstrate your compliance with the requirements specified in § 125.134 or alternative requirements under § 125.135.

(a) *Biological monitoring.* (1)(i) Fixed facilities without sea chests that choose to comply with the Track I requirements in § 125.134(b)(1)(i) must monitor for entrainment. These facilities are not required to monitor for impingement, unless the Director determines that the information would be necessary to evaluate the need for or compliance with additional requirements in accordance with § 125.134(b)(4) or more stringent requirements in accordance with § 125.134(d).

(ii) Fixed facilities with sea chests that choose to comply with Track I requirements are not required to perform biological monitoring unless the Director determines that the information would be necessary to evaluate the need for or compliance with additional requirements in accordance with § 125.134(b)(4) or more stringent requirements in accordance with § 125.134(d).

(iii) Facilities that are not fixed facilities are not required to perform biological monitoring unless the Director determines that the information would be necessary to evaluate the need for or compliance with additional requirements in accordance with § 125.134(b)(4) or more stringent requirements in accordance with § 125.134(d).

(iv) Fixed facilities with sea chests that choose to comply with Track II requirements in accordance with § 125.134(c), must monitor for impingement only. Fixed facilities without sea chests, must monitor for both impingement and entrainment.

(2) Monitoring must characterize the impingement rates and (if applicable) entrainment rates of commercial, recreational, and forage base fish and shellfish species identified in the Source Water Baseline Biological Characterization data required by 40 CFR 122.21(r)(4), identified in the Comprehensive Demonstration Study required by § 125.136(c)(2), or as specified by the Director.

(3) 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)(4), those used by the Comprehensive Demonstration Study required by § 125.136(c)(2), or as specified by the Director. 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.

(4) *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.

(5) *Entrainment sampling.* If your facility is subject to the requirements of § 125.134(b)(1)(i) or (c), 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)(4) or the Comprehensive Demonstration Study required in § 125.136(c)(2). You must collect samples only when the cooling water intake structure is in operation.

(b) *Velocity monitoring.* If your facility uses a 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 § 125.134(b)(2). 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 § 125.134(b)(4), (b)(5), (c), and/or (d) 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.

§ 125.138 As an owner or operator of a new offshore oil and gas extraction facility, must I keep records and report?

As an owner or operator of a new offshore oil and gas extraction 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 § 125.136, and any compliance monitoring data submitted under § 125.137, 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) For fixed facilities, biological monitoring records for each cooling water intake structure as required by § 125.137(a);

(2) Velocity and head loss monitoring records for each cooling water intake structure as required by § 125.137(b); and

(3) Records of visual or remote inspections as required in § 125.137(c).

§ 125.139 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), § 125.135, and § 125.136 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 offshore oil and gas extraction facility, the Director must determine applicable standards in § 125.134 or § 125.135 to apply to the new offshore oil and gas extraction 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 § 125.136(c)(2)(ii). 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 offshore oil and gas extraction facility in its permit application, the appropriate requirements and conditions to include in the permit based on the track (Track I or Track II), or alternative requirements in accordance with § 125.135, the new offshore oil and gas extraction 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 applicable requirements of § 125.134(b)(2), (3), (4) and (5); § 125.134(c)(1) and (2); or § 125.135.

(i) For a facility that chooses Track I, you must review the Design and Construction Technology Plan required in § 125.136(b)(3) to evaluate the suitability and feasibility of the technology proposed to minimize impingement mortality and (if applicable) entrainment of all life stages of fish and shellfish. In the first permit issued, you must include a condition requiring the facility to reduce impingement mortality and/or 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/or entrainment of all life stages of fish and shellfish. In addition, you must consider whether more stringent conditions are reasonably necessary in accordance with § 125.134(d).

(ii) For a fixed facility that chooses Track II, you must review the information submitted with the Comprehensive Demonstration Study information required in § 125.136(c)(2), evaluate the suitability of the proposed design and construction technology and/or operational measures to determine whether they will reduce both impingement mortality and/or entrainment of all life stages of fish and shellfish to 90 percent or greater of the reduction that could be achieved through Track I. In addition, you must review the Verification Monitoring Plan in § 125.136(c)(2)(iii)(C) 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 and operational measures meet the requirements in § 125.134(c)(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 § 125.134(b)(2) and, if applicable, § 125.134(b)(5).

(iii) If a facility requests alternative requirements in accordance with § 125.135, you must determine if data specific to the facility meet the requirements in § 125.135(a) and include in the permit requirements that are no less stringent than justified by the wholly out of proportion cost or the significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on energy markets.

(2) *Monitoring conditions.* At a minimum, the permit must require the permittee to perform the monitoring required in § 125.137. 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 § 125.136(c)(2)(iii)(C).

(3) *Record keeping and reporting.* At a minimum, the permit must require the permittee to report and keep records as required by § 125.138.

[FR Doc. 04–24913 Filed 11–23–04; 8:45 am]
BILLING CODE 6560–50–P