Disclaimer: The following document is a conversion of the August 15, 2014 Federal Register notice for the Clean Water Act section 316(b) cooling water intake structures final rule for existing facilities. This conversion is a word document that has been made at the request of state regulators to allow insertion of the CFR regulatory requirements directly into their state programs. In the event of any typos or corrections made to the CFR, the CFR is considered the correct and controlling document.

For reasons set out in the preamble, Chapter I of Title 40 of the Code of Federal Regulations is amended as follows:

# 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. The suspension of 40 CFR 122.21(r)(1)(ii) and (r)(5), published on July 9, 2007 (72 FR 37109) is lifted.

■ 3. Section 122.21 is amended as follows:

■ a. Revising paragraph (r)(1).

■ b. Adding paragraphs (r)(4)(ix) through (xii).

■ c. Revising paragraph (r)(5).

■ d. Adding paragraphs (r)(6) through (14).

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

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(r) \* \* \*

(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) (except (r)(4)(ix), (x), (xi), and (xii)) of this section and § 125.86 of this chapter as part of the permit 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) (except (r)(4)(ix), (x), (xi), and (xii)) of this section and § 125.136 of this chapter as part of their permit application.

(ii) Existing facilities. (A) All existing facilities. The owner or operator of an existing facility defined at 40 CFR 125.92(k) must submit to the Director for review the information required under paragraphs (r)(2) and (3) of this section and applicable provisions of paragraphs (r)(4), (5), (6), (7), and (8) of this section.

(B) Existing facilities greater than 125 mgd AIF. In addition, the owner or operator of an existing facility that withdraws greater than 125 mgd actual intake flow (AIF), as defined at 40 CFR 125.92 (a), of water for cooling purposes must also submit to the Director for review the information required under paragraphs (r)(9), (10), (11), (12), and (13) of this section. If the owner or operator of an existing facility intends to comply with the BTA (best technology available) standards for entrainment using a closed-cycle recirculating system as defined at 40 CFR 125.92(c), the Director may reduce or waive some or all of the information required under paragraphs (r)(9) through (13) of this section.

(C) Additional information. The owner or operator of an existing facility must also submit such additional information as the Director determines is necessary pursuant to 40 CFR 125.98(i).

(D) New units at existing facilities. The owner or operator of a new unit at an existing facility, as defined at 40 CFR 125.92(u), must submit or update any information previously provided to the Director by submitting the information required under paragraphs (r)(2), (3), (5), (8), and (14) of this section and applicable provisions of paragraphs (r)(4), (6), and (7) of this section. Requests for and approvals of alternative requirements sought under 40 CFR 125.94(e)(2) or 125.98(b)(7) must be submitted with the permit application.

(E) New units at existing facilities not previously subject to Part 125. The owner or operator of a new unit as defined at 40 CFR 125.92(u) at an existing facility not previously subject to part 125 of this chapter that increases the total capacity of the existing facility to more than 2 mgd DIF must submit the information required under paragraphs (r)(2), (3), (5), and (8) of this section and applicable provisions of paragraphs (r)(4), (6), and (7) of this section at the time of the permit application for the new unit. Requests for alternative requirements under 40 CFR 125.94(e)(2) or 125.98(b)(7) must be submitted with the permit application. If the total capacity of the facility will increase to more than 125 mgd AIF, the owner or operator must also submit the information required in paragraphs (r)(9) through (13) of this section. If the owner or operator of an existing facility intends to comply with the BTA (best technology available) standards for entrainment using a closed-cycle recirculating system as defined at 40 CFR 125.92(c), the Director may reduce or waive some or all of the information required under paragraphs (r)(9) through (13) of this section.

(F) If the owner or operator of an existing facility plans to retire the facility before the current permit expires, then the requirements of paragraphs (r)(1)(ii)(A), (B), (C), (D), and (E) of this section do not apply.

(G) If the owner or operator of an existing facility plans to retire the facility after the current permit expires but within one permit cycle, then the Director may waive the requirements of paragraphs (r)(7), (9), (10), (11), (12), and (13) of this section pending a signed certification statement from the owner or operator of the facility specifying the last operating date of the facility.

(H) All facilities. The owner or operator of any existing facility or new unit at any existing facility must also submit with its permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

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(4) \* \* \*

(ix) In the case of the owner or operator of an existing facility or new unit at an existing facility, the Source Water Baseline Biological Characterization Data is the information in paragraphs (r)(4)(i) through (xii) of this section.

(x) For the owner or operator of an existing facility, identification of protective measures and stabilization activities that have been implemented, and a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.

(xi) For the owner or operator of an existing facility, a list of fragile species, as defined at 40 CFR 125.92(m), at the facility. The applicant need only identify those species not already identified as fragile at 40 CFR 125.92(m). New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

(xii) For the owner or operator of an existing facility that has obtained incidental take exemption or authorization for its cooling water intake structure(s) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, any information submitted in order to obtain that exemption or authorization may be used to satisfy the permit application information requirement of paragraph 40 CFR 125.95(f) if included in the application.

(5) Cooling Water System Data. The owner or operator of an existing facility must submit the following information for each cooling water intake structure used or intended to be used:

(i) A narrative description of the operation of the cooling water system and its relationship to cooling water intake structures; the proportion of the design intake flow that is used in the system; the number of days of the year the cooling water system is in operation and seasonal changes in the operation of the system, if applicable; the proportion of design intake flow for contact cooling, non-contact cooling, and process uses; a distribution of water reuse to include cooling water reused as process water, process water reused for cooling, and the use of gray water for cooling; a description of reductions in total water withdrawals including cooling water intake flow reductions already achieved through minimized process water withdrawals; a description of any cooling water that is used in a manufacturing process either before or after it is used for cooling, including other recycled process water flows; the proportion of the source waterbody withdrawn (on a monthly basis);

(ii) Design and engineering calculations prepared by a qualified professional and supporting data to support the description required by paragraph (r)(5)(i) of this section; and

(iii) Description of existing impingement and entrainment technologies or operational measures and a summary of their performance, including but not limited to reductions in impingement mortality and entrainment due to intake location and reductions in total water withdrawals and usage.

(6) Chosen Method(s) of Compliance with Impingement Mortality Standard. The owner or operator of the facility must identify the chosen compliance method for the entire facility; alternatively, the applicant must identify the chosen compliance method for each cooling water intake structure at its facility. The applicant must identify any intake structure for which a BTA determination for Impingement Mortality under 40 CFR 125.94 (c)(11) or (12) is requested. In addition, the owner or operator that chooses to comply via 40 CFR 125.94 (c)(5) or (6) must also submit an impingement technology performance optimization study as described below:

(i) If the applicant chooses to comply with 40 CFR 125.94(c)(5), subject to the flexibility for timing provided in 40 CFR 125.95(a)(2), the impingement technology performance optimization study must include two years of biological data collection measuring the reduction in impingement mortality achieved by the modified traveling screens as defined at 40 CFR 125.92(s) and demonstrating that the operation has been optimized to minimize impingement mortality. A complete description of the modified traveling screens and associated equipment must be included, including, for example, type of mesh, mesh slot size, pressure sprays and fish return mechanisms. A description of any biological data collection and data collection approach used in measuring impingement mortality must be included:

(A) Collecting data no less frequently than monthly. The Director may establish more frequent data collection;

(B) Biological data collection representative of the impingement and the impingement mortality at the intakes subject to this provision;

(C) A taxonomic identification to the lowest taxon possible of all organisms collected;

(D) The method in which naturally moribund organisms are identified and taken into account;

(E) The method in which mortality due to holding times is taken into account;

(F) If the facility entraps fish or shellfish, a count of entrapment, as defined at 40 CFR 125.92(j), as impingement mortality; and

(G) The percent impingement mortality reflecting optimized operation of the modified traveling screen and all supporting calculations.

(ii) If the applicant chooses to comply with 40 CFR 125.94(c)(6), the impingement technology performance optimization study must include biological data measuring the reduction in impingement mortality achieved by operation of the system of technologies, operational measures and best management practices, and demonstrating that operation of the system has been optimized to minimize impingement mortality. This system of technologies, operational measures and best management practices may include flow reductions, seasonal operation, unit closure, credit for intake location, and behavioral deterrent systems. The applicant must document how each system element contributes to the system’s performance. The applicant must include a minimum of two years of biological data measuring the reduction in impingement mortality achieved by the system. The applicant must also include a description of any sampling or data collection approach used in measuring the rate of impingement, impingement mortality, or flow reductions.

(A) Rate of Impingement. If the demonstration relies in part on a credit for reductions in the rate of impingement in the system, the applicant must provide an estimate of those reductions to be used as credit towards reducing impingement mortality, and any relevant supporting documentation, including previously collected biological data, performance reviews, and previously conducted performance studies not already submitted to the Director. The submission of studies more than 10 years old must include an explanation of why the data are still relevant and representative of conditions at the facility and explain how the data should be interpreted using the definitions of impingement and entrapment at 40 CFR 125.92(n) and (j), respectively. The estimated reductions in rate of impingement must be based on a comparison of the system to a once- through cooling system with a traveling screen whose point of withdrawal from the surface water source is located at the shoreline of the source waterbody. For impoundments that are waters of the United States in whole or in part, the facility’s rate of impingement must be measured at a location within the cooling water intake system that the Director deems appropriate. In addition, the applicant must include two years of biological data collection demonstrating the rate of impingement resulting from the system. For this demonstration, the applicant must collect data no less frequently than monthly. The Director may establish more frequent data collection.

(B) Impingement Mortality. If the demonstration relies in part on a credit for reductions in impingement mortality already obtained at the facility, the applicant must include two years of biological data collection demonstrating the level of impingement mortality the system is capable of achieving. The applicant must submit any relevant supporting documentation, including previously collected biological data, performance reviews, and previously conducted performance studies not already submitted to the Director. The applicant must provide a description of any sampling or data collection approach used in measuring impingement mortality. In addition, for this demonstration the applicant must:

(1) Collect data no less frequently than monthly. The Director may establish more frequent data collection;

(2) Conduct biological data collection that is representative of the impingement and the impingement mortality at an intake subject to this provision. In addition, the applicant must describe how the location of the cooling water intake structure in the waterbody and the water column are accounted for in the points of data collection;

(3) Include a taxonomic identification to the lowest taxon possible of all organisms to be collected;

(4) Describe the method in which naturally moribund organisms are identified and taken into account;

(5) Describe the method in which mortality due to holding times is taken into account; and

(6) If the facility entraps fish or shellfish, a count of the entrapment, as defined at 40 CFR 125.92(j), as impingement mortality.

(C) Flow reduction. If the demonstration relies in part on flow reduction to reduce impingement, the applicant must include two years of intake flows, measured daily, as part of the demonstration, and describe the extent to which flow reductions are seasonal or intermittent. The applicant must document how the flow reduction results in reduced impingement. In addition, the applicant must describe how the reduction in impingement has reduced impingement mortality.

(D) Total system performance. The applicant must document the percent impingement mortality reflecting optimized operation of the total system of technologies, operational measures, and best management practices and all supporting calculations. The total system performance is the combination of the impingement mortality performance reflected in paragraphs (r)(6)(ii)(A), (B), and (C) of this section.

(7) Entrainment Performance Studies. The owner or operator of an existing facility must submit any previously conducted studies or studies obtained from other facilities addressing technology efficacy, through-facility entrainment survival, and other entrainment studies. Any such submittals must include a description of each study, together with underlying data, and a summary of any conclusions or results. Any studies conducted at other locations must include an explanation as to why the data from other locations are relevant and representative of conditions at your facility. In the case of studies more than 10 years old, the applicant must explain why the data are still relevant and representative of conditions at the facility and explain how the data should be interpreted using the definition of entrainment at 40 CFR 125.92(h).

(8) Operational Status. The owner or operator of an existing facility must submit a description of the operational status of each generating, production, or process unit that uses cooling water, including but not limited to:

(i) For power production or steam generation, descriptions of individual unit operating status including age of each unit, capacity utilization rate (or equivalent) for the previous 5 years, including any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors, including identification of any operating unit with a capacity utilization rate of less than 8 percent averaged over a 24-month block contiguous period, and any major upgrades completed within the last 15 years, including but not limited to boiler replacement, condenser replacement, turbine replacement, or changes to fuel type;

(ii) Descriptions of completed, approved, or scheduled uprates and Nuclear Regulatory Commission relicensing status of each unit at nuclear facilities;

(iii) For process units at your facility that use cooling water other than for power production or steam generation, if you intend to use reductions in flow or changes in operations to meet the requirements of 40 CFR 125.94(c), descriptions of individual production processes and product lines, operating status including age of each line, seasonal operation, including any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors, any major upgrades completed within the last 15 years, and plans or schedules for decommissioning or replacement of process units or production processes and product lines;

(iv) For all manufacturing facilities, descriptions of current and future production schedules; and

(v) Descriptions of plans or schedules for any new units planned within the next 5 years.

(9) Entrainment Characterization Study. The owner or operator of an existing facility that withdraws greater than 125 mgd AIF, where the withdrawal of cooling water is measured at a location within the cooling water intake structure that the Director deems appropriate, must develop for submission to the Director an Entrainment Characterization Study that includes a minimum of two years of entrainment data collection. The Entrainment Characterization Study must include the following components:

(i) Entrainment Data Collection Method. The study should identify and document the data collection period and frequency. The study should identify and document organisms collected to the lowest taxon possible of all life stages of fish and shellfish that are in the vicinity of the cooling water intake structure(s) and are susceptible to entrainment, including any organisms identified by the Director, and any species protected under Federal, State, or Tribal law, including threatened or endangered species with a habitat range that includes waters in the vicinity of the cooling water intake structure. Biological data collection must be representative of the entrainment at the intakes subject to this provision. The owner or operator of the facility must identify and document how the location of the cooling water intake structure in the waterbody and the water column are accounted for by the data collection locations;

(ii) Biological Entrainment Characterization. Characterization of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal law (including threatened or endangered species), including a description of their abundance and their 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 entrainment, including but not limited to variations related to climate and weather differences, spawning, feeding, and water column migration. This characterization may include historical data that are representative of the current operation of the facility and of biological conditions at the site. Identification of all life stages of fish and shellfish must include identification of any surrogate species used, and identification of data representing both motile and non-motile life-stages of organisms;

(iii) Analysis and Supporting Documentation. Documentation of the current entrainment of all life stages of fish, shellfish, and any species protected under Federal, State, or Tribal law (including threatened or endangered species). The documentation may include historical data that are representative of the current operation of the facility and of biological conditions at the site. Entrainment data to support the facility’s calculations must be collected during periods of representative operational flows for the cooling water intake structure, and the flows associated with the data collection must be documented. The method used to determine latent mortality along with data for specific organism mortality or survival that is applied to other life- stages or species must be identified. The owner or operator of the facility must identify and document all assumptions and calculations used to determine the total entrainment for that facility together with all methods and quality assurance/quality control procedures for data collection and data analysis. The proposed data collection and data analysis methods must be appropriate for a quantitative survey.

(10) Comprehensive Technical Feasibility and Cost Evaluation Study. The owner or operator of an existing facility that withdraws greater than 125 mgd AIF must develop for submission to the Director an engineering study of the technical feasibility and incremental costs of candidate entrainment control technologies. In addition, the study must include the following:

(i) Technical feasibility. An evaluation of the technical feasibility of closed- cycle recirculating systems as defined at 40 CFR 125.92(c), fine mesh screens with a mesh size of 2 millimeters or smaller, and water reuse or alternate sources of cooling water. In addition, this study must include:

(A) A description of all technologies and operational measures considered (including alternative designs of closed- cycle recirculating systems such as natural draft cooling towers, mechanical draft cooling towers, hybrid designs, and compact or multi-cell arrangements);

(B) A discussion of land availability, including an evaluation of adjacent land and acres potentially available due to generating unit retirements, production unit retirements, other buildings and equipment retirements, and potential for repurposing of areas devoted to ponds, coal piles, rail yards, transmission yards, and parking lots;

(C) A discussion of available sources of process water, grey water, waste water, reclaimed water, or other waters of appropriate quantity and quality for use as some or all of the cooling water needs of the facility; and

(D) Documentation of factors other than cost that may make a candidate technology impractical or infeasible for further evaluation.

(ii) Other entrainment control technologies. An evaluation of additional technologies for reducing entrainment may be required by the Director.

(iii) Cost evaluations. The study must include engineering cost estimates of all technologies considered in paragraphs (r)(10)(i) and (ii) of this section. Facility costs must also be adjusted to estimate social costs. All costs must be presented as the net present value (NPV) and the corresponding annual value. Costs must be clearly labeled as compliance costs or social costs. The applicant must separately discuss facility level compliance costs and social costs, and provide documentation as follows:

(A) Compliance costs are calculated as after-tax, while social costs are calculated as pre-tax. Compliance costs include the facility’s administrative costs, including costs of permit application, while the social cost adjustment includes the Director’s administrative costs. Any outages, downtime, or other impacts to facility net revenue, are included in compliance costs, while only that portion of lost net revenue that does not accrue to other producers can be included in social costs. Social costs must also be discounted using social discount rates of 3 percent and 7 percent. Assumptions regarding depreciation schedules, tax rates, interest rates, discount rates and related assumptions must be identified;

(B) Costs and explanation of any additional facility modifications necessary to support construction and operation of technologies considered in paragraphs (r)(10)(i) and (ii) of this section, including but not limited to relocation of existing buildings or equipment, reinforcement or upgrading of existing equipment, and additional construction and operating permits. Assumptions regarding depreciation schedules, interest rates, discount rates, useful life of the technology considered, and any related assumptions must be identified; and

(C) Costs and explanation for addressing any non-water quality environmental and other impacts identified in paragraph (r)(12) of this section. The cost evaluation must include a discussion of all reasonable attempts to mitigate each of these impacts.

(11) Benefits Valuation Study. The owner or operator of an existing facility that withdraws greater than 125 mgd AIF must develop for submission to the Director an evaluation of the benefits of the candidate entrainment reduction technologies and operational measures evaluated in paragraph (r)(10) of this section including using the Entrainment Characterization Study completed in paragraph (r)(9) of this section. Each category of benefits must be described narratively, and when possible, benefits should be quantified in physical or biological units and monetized using appropriate economic valuation methods. The benefits valuation study must include, but is not limited to, the following elements:

(i) Incremental changes in the numbers of individual fish and shellfish lost due to impingement mortality and entrainment as defined in 40 CFR 125.92, for all life stages of each exposed species;

(ii) Description of basis for any estimates of changes in the stock sizes or harvest levels of commercial and recreational fish or shellfish species or forage fish species;

(iii) Description of basis for any monetized values assigned to changes in the stock size or harvest levels of commercial and recreational fish or shellfish species, forage fish, and to any other ecosystem or non use benefits;

(iv) A discussion of mitigation efforts completed prior to October 14, 2014 including how long they have been in effect and how effective they have been;

(v) Discussion, with quantification and monetization, where possible, of any other benefits expected to accrue to the environment and local communities, including but not limited to improvements for mammals, birds, and other organisms and aquatic habitats;

(vi) Discussion, with quantification and monetization, where possible, of any benefits expected to result from any reductions in thermal discharges from entrainment technologies.

(12) Non-water Quality Environmental and Other Impacts Study. The owner or operator of an existing facility that withdraws greater than 125 mgd AIF must develop for submission to the Director a detailed facility-specific discussion of the changes in non-water quality environmental and other impacts attributed to each technology and operational measure considered in paragraph (r)(10) of this section, including both impacts increased and impacts decreased. The study must include the following:

(i) Estimates of changes to energy consumption, including but not limited to auxiliary power consumption and turbine backpressure energy penalty;

(ii) Estimates of air pollutant emissions and of the human health and environmental impacts associated with such emissions;

(iii) Estimates of changes in noise;

(iv) A discussion of impacts to safety, including documentation of the potential for plumes, icing, and availability of emergency cooling water;

(v) A discussion of facility reliability, including but not limited to facility availability, production of steam, impacts to production based on process unit heating or cooling, and reliability due to cooling water availability;

(vi) Significant changes in consumption of water, including a facility-specific comparison of the evaporative losses of both once-through cooling and closed-cycle recirculating systems, and documentation of impacts attributable to changes in water consumption; and

(vii) A discussion of all reasonable attempts to mitigate each of these factors.

(13) Peer Review. If the applicant is required to submit studies under paragraphs (r)(10) through (12) of this section, the applicant must conduct an external peer review of each report to be submitted with the permit application. The applicant must select peer reviewers and notify the Director in advance of the peer review. The Director may disapprove of a peer reviewer or require additional peer reviewers. The Director may confer with EPA, Federal, State and Tribal fish and wildlife management agencies with responsibility for fish and wildlife potentially affected by the cooling water intake structure, independent system operators, and state public utility regulatory agencies, to determine which peer review comments must be addressed. The applicant must provide an explanation for any significant reviewer comments not accepted. Peer reviewers must have appropriate qualifications and their names and credentials must be included in the peer review report.

(14) New Units. The applicant must identify the chosen compliance method for the new unit. In addition, the owner or operator that selects the BTA standards for new units at 40 CFR 125.94 (e)(2) as its route to compliance must submit information to demonstrate entrainment reductions equivalent to 90 percent or greater of the reduction that could be achieved through compliance with 40 CFR 125.94(e)(1). The demonstration must include the Entrainment Characterization Study at paragraph (r)(9) of this section. In addition, if data specific to your facility indicates that compliance with the requirements of § 125.94 of this chapter for each new unit would result in compliance costs wholly out of proportion to the costs EPA considered in establishing the requirements at issue, or would result in significant adverse impacts on local air quality, significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on local energy markets, you must submit all supporting data as part of paragraph (r)(14) of this section. The Director may determine that additional data and information, including but not limited to monitoring, must be included as part of paragraph (r)(14) of this section.

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

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

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

## Subpart I—[Amended]

■ 5. Section 125.84 is amended by revising paragraphs (c) introductory text and (d)(1) to read as follows:

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

\* \* \* \* \*

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

\* \* \* \* \*

(d) \* \* \*

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

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■ 6. Section 125.86 is amended as follows:

■ a. Revise paragraphs (a)(1)(ii), (b)(3) introductory text, and (b)(4)(iii) introductory text.

■ b. Remove and reserve paragraphs (c)(2)(ii), (c)(2)(iv)(C), and (c)(2)(iv)(D)(*2*).

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

(a) \* \* \*

(1) \* \* \*

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

\* \* \* \* \*

(b) \* \* \*

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

\* \* \* \* \*

(4) \* \* \*

(iii) The owner or operator of a new facility required to install design and construction technologies and/or operational measures must develop a plan which explains the technologies and measures selected; this plan shall be based on information collected for the Source Water Biological Baseline Characterization required by 40 CFR 122.21(r)(4). Examples of appropriate technologies include, but are not limited to, wedgewire screens, fine mesh screens, fish handling and return systems, barrier nets, aquatic filter barrier systems, etc. Examples of appropriate operational measures include, but are not limited to, seasonal shutdowns or reductions in flow, and continuous operations of screens, etc. The plan must contain the following information:

\* \* \* \* \*

■ 7. Section 125.87 is amended by revising paragraphs (a) introductory text and (a)(2) to read as follows:

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

\* \* \* \* \*

(a) Biological monitoring. You must monitor both impingement and entrainment of the commercial, recreational, and forage base fish and shellfish species identified in either the Source Water Baseline Biological Characterization data required by 40 CFR 122.21(r)(4) or the Comprehensive Demonstration Study required by § 125.86(c)(2), depending on whether you chose to comply with Track I or Track II. The monitoring methods used must be consistent with those used for the Source Water Baseline Biological Characterization data required in 40 CFR 122.21(r)(4) or the Comprehensive Demonstration Study required by § 125.86(c)(2). You must follow the monitoring frequencies identified below for at least two (2) years after the initial permit issuance. After that time, the Director may approve a request for less frequent sampling in the remaining years of the permit term and when the permit is reissued, if the Director determines the 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.

\* \* \* \* \*

(2) Entrainment sampling. You must collect samples at least biweekly to monitor entrainment rates (simple enumeration) for each species over a 24- hour period 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 § 125.86(c)(2). You must collect samples only when the cooling water intake structure is in operation.

\* \* \* \* \*

■ 8. Section 125.89 is amended by revising paragraphs (a) introductory text and (b)(1)(i) and (ii) to read as follows:

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

(a) Permit application. As the Director, you must review materials submitted by the applicant under 40 CFR 122.21(r)(4) and § 125.86 at the time of the initial permit application and before each permit renewal or reissuance.

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

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

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

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■ 9. The suspension of 40 CFR 125.90(a), (c), and (d), and 125.91 through 125.99, published on July 9, 2007 (72 FR 37109) is lifted.

■ 10. Subpart J to part 125 is revised to read as follows:

# Subpart J—Requirements Applicable to Cooling Water Intake Structures for Existing Facilities Under Section 316(b) of the Clean Water Act

Sec.

125.90 Purpose of this subpart.

125.91 Applicability.

125.92 Special definitions.

125.93 [Reserved]

125.94 As an owner or operator of an existing facility, what must I do to comply with this subpart?

125.95 Permit application and supporting information requirements.

125.96 Monitoring requirements.

125.97 Other permit reporting and recordkeeping requirements.

125.98 Director requirements.

125.99 [Reserved]

# Subpart J—Requirements Applicable to Cooling Water Intake Structures for Existing Facilities Under Section 316(b) of the Clean Water Act

## § 125.90 Purpose of this subpart.

(a) This subpart establishes the section 316(b) requirements that apply to cooling water intake structures at existing facilities that are subject to this subpart. These requirements include a number of components. These include standards for minimizing adverse environmental impact associated with the use of cooling water intake structures and required procedures (e.g., permit application requirements, information submission requirements) for establishing the appropriate technology requirements at certain specified facilities as well as monitoring, reporting, and recordkeeping requirements to demonstrate compliance. In combination, these components represent the best technology available for minimizing adverse environmental impact associated with the use of cooling water intake structures at existing facilities. These requirements are to be established and implemented in National Pollutant Discharge Elimination System (NPDES) permits issued under the Clean Water Act (CWA).

(b) Cooling water intake structures not subject to requirements under §§ 125.94 through 125.99 or subparts I or N of this part must meet requirements under section 316(b) of the CWA established by the Director on a case-by-case, best professional judgment (BPJ) basis.

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

Note to § 125.90. This regulation does not authorize take, as defined by the Endangered Species Act, 16 U.S.C. 1532(19). The U.S. Fish and Wildlife Service and National Marine Fisheries Service have determined that any impingement (including entrapment) or entrainment of Federally-listed species constitutes take. Such take may be authorized pursuant to the conditions of a permit issued under 16 U.S.C. 1539(a) or where consistent with an Incidental Take Statement contained in a Biological Opinion pursuant to 16 U.S.C. 1536(o).

## § 125.91 Applicability.

(a) The owner or operator of an existing facility, as defined in § 125.92(k), is subject to the requirements at §§ 125.94 through 125.99 if:

(1) The facility is a point source;

(2) The facility uses or proposes to use one or more cooling water intake structures with a cumulative design intake flow (DIF) of greater than 2 million gallons per day (mgd) to withdraw water from waters of the United States; and

(3) Twenty-five percent or more of the water the facility withdraws on an actual intake flow basis is used exclusively for cooling purposes.

(b) 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 independent supplier withdraws water from waters of the United States but is not itself a new or existing facility as defined in subparts I or J of this part, except as provided in paragraphs (c) and (d) of this section. An owner or operator of an existing facility may not circumvent these requirements by creating arrangements to receive cooling water from an entity that is not itself a facility subject to subparts I or J of this part.

(c) Obtaining cooling water from a public water system, using reclaimed water from wastewater treatment facilities or desalination plants, or recycling treated process wastewater effluent as cooling water does not constitute use of a cooling water intake structure for purposes of this subpart.

(d) This subpart does not apply to offshore seafood processing facilities, offshore liquefied natural gas terminals, and offshore oil and gas extraction facilities that are existing facilities as defined in § 125.92(k). The owners and operators of such facilities must meet requirements established by the Director on a case-by-case, best professional judgment (BPJ) basis.

## § 125.92 Special definitions.

In addition to the definitions provided in 40 CFR 122.2, the following special definitions apply to this subpart:

(a) Actual Intake Flow (AIF) means the average volume of water withdrawn on an annual basis by the cooling water intake structures over the past three years. After October 14, 2019, Actual Intake Flow means the average volume of water withdrawn on an annual basis by the cooling water intake structures over the previous five years. Actual intake flow is measured at a location within the cooling water intake structure that the Director deems appropriate. The calculation of actual intake flow includes days of zero flow. AIF does not include flows associated with emergency and fire suppression capacity.

(b) All life stages of fish and shellfish means eggs, larvae, juveniles, and adults. It does not include members of the infraclass Cirripedia in the subphylum Crustacea (barnacles), green mussels (Perna viridis), or zebra mussels (Dreissena polymorpha). The Director may determine that all life stages of fish and shellfish does not include other specified nuisance species.

(c) Closed-cycle recirculating system means a system designed and properly operated using minimized make-up and blowdown flows withdrawn from a water of the United States to support contact or non-contact cooling uses within a facility, or a system designed to include certain impoundments. A closed-cycle recirculating system passes cooling water through the condenser and other components of the cooling system and reuses the water for cooling multiple times.

(1) Closed-cycle recirculating system includes a facility with wet, dry, or hybrid cooling towers, a system of impoundments that are not waters of the United States, or any combination thereof. A properly operated and maintained closed-cycle recirculating system withdraws new source water (make-up water) only to replenish losses that have occurred due to blowdown, drift, and evaporation. If waters of the United States are withdrawn for purposes of replenishing losses to a closed-cycle recirculating system other than those due to blowdown, drift, and evaporation from the cooling system, the Director may determine a cooling system is a closed-cycle recirculating system if the facility demonstrates to the satisfaction of the Director that make-up water withdrawals attributed specifically to the cooling portion of the cooling system have been minimized.

(2) Closed-cycle recirculating system also includes a system with impoundments of waters of the U.S. where the impoundment was constructed prior to October 14, 2014 and created for the purpose of serving as part of the cooling water system as documented in the project purpose statement for any required Clean Water Act section 404 permit obtained to construct the impoundment. In the case of an impoundment whose construction pre-dated the CWA requirement to obtain a section 404 permit, documentation of the project’s purpose must be demonstrated to the satisfaction of the Director. This documentation could be some other license or permit obtained to lawfully construct the impoundment for the purposes of a cooling water system, or other such evidence as the Director finds necessary. For impoundments constructed in uplands or not in waters of the United States, no documentation of a section 404 or other permit is required. If waters of the United States are withdrawn for purposes of replenishing losses to a closed-cycle recirculating system other than those due to blowdown, drift, and evaporation from the cooling system, the Director may determine a cooling system is a closed-cycle recirculating system if the facility demonstrates to the satisfaction of the Director that make-up water withdrawals attributed specifically to the cooling portion of the cooling system have been minimized.

(d) Contact cooling water means water used for cooling which comes into direct contact with any raw material, product, or byproduct. Examples of contact cooling water may include but are not limited to quench water at facilities, cooling water in a cracking unit, and cooling water directly added to food and agricultural products processing.

(e) Cooling water means water used for contact or non-contact 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 obtained from a public water system, reclaimed water from wastewater treatment facilities or desalination plants, treated effluent from a manufacturing facility, or cooling water that is used in a manufacturing process either before or after it is used for cooling as process water, is not considered cooling water for the purposes of calculating the percentage of a facility’s intake flow that is used for cooling purposes in § 125.91(a)(3).

(f) Cooling water intake structure means the total physical structure and any associated constructed waterways used to withdraw cooling water from waters of the United States. The cooling water intake structure extends from the point at which water is first withdrawn from waters of the United States up to, and including the intake pumps.

(g) Design intake flow (DIF) means the value assigned during the cooling water intake structure design to the maximum instantaneous rate of flow of water the cooling water intake system is capable of withdrawing from a source waterbody. The facility’s DIF may be adjusted to reflect permanent changes to the maximum capabilities of the cooling water intake system to withdraw cooling water, including pumps permanently removed from service, flow limit devices, and physical limitations of the piping. DIF does not include values associated with emergency and fire suppression capacity or redundant pumps (i.e., back-up pumps).

(h) Entrainment means any life stages of fish and shellfish in the intake water flow entering and passing through a cooling water intake structure and into a cooling water system, including the condenser or heat exchanger. Entrainable organisms include any organisms potentially subject to entrainment. For purposes of this subpart, entrainment excludes those organisms that are collected or retained by a sieve with maximum opening dimension of 0.56 inches. Examples of sieves meeting this definition include but are not limited to a 3⁄8 inch square mesh, or a 1⁄2 by 1⁄4 inch mesh. A facility must use the same mesh size when counting entrainment as is used when counting impingement.

(i) Entrainment mortality means death as a result of entrainment through the cooling water intake structure, or death as a result of exclusion from the cooling water intake structure by fine mesh screens or other protective devices intended to prevent the passage of entrainable organisms through the cooling water intake structure.

(j) Entrapment means the condition where impingeable fish and shellfish lack the means to escape the cooling water intake. Entrapment includes but is not limited to: Organisms caught in the bucket of a traveling screen and unable to reach a fish return; organisms caught in the forebay of a cooling water intake system without any means of being returned to the source waterbody without experiencing mortality; or cooling water intake systems where the velocities in the intake pipes or in any channels leading to the forebay prevent organisms from being able to return to the source waterbody through the intake pipe or channel.

(k) Existing facility means any facility that commenced construction as described in 40 CFR 122.29(b)(4) on or before January 17, 2002 (or July 17, 2006 for an offshore oil and gas extraction facility) and any modification of, or any addition of a unit at such a facility. A facility built adjacent to another facility would be a new facility while the original facility would remain as an existing facility for purposes of this subpart. A facility cannot both be an existing facility and a new facility as defined at § 125.83.

(l) Flow reduction means any modification to a cooling water intake structure or its operation that serves to reduce the volume of cooling water withdrawn. Examples include, but are not limited to, variable speed pumps, seasonal flow reductions, wet cooling towers, dry cooling towers, hybrid cooling towers, unit closures, or substitution for withdrawals by reuse of effluent from a nearby facility.

(m) Fragile species means those species of fish and shellfish that are least likely to survive any form of impingement. For purposes of this subpart, fragile species are defined as those with an impingement survival rate of less than 30 percent, including but not limited to alewife, American shad, Atlantic herring, Atlantic long-finned squid, Atlantic menhaden, bay anchovy, blueback herring, bluefish, butterfish, gizzard shad, grey snapper, hickory shad, menhaden, rainbow smelt, round herring, and silver anchovy.

(n) 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. For purposes of this subpart, impingement includes those organisms collected or retained on a sieve with maximum distance in the opening of 0.56 inches, and excludes those organisms that pass through the sieve. Examples of sieves meeting this definition include but are not limited to a 3⁄8 inch square mesh, or a 1⁄2 by 1⁄4 inch mesh. This definition is intended to prevent the conversion of entrainable organisms to counts of impingement or impingement mortality. The owner or operator of a facility must use a sieve with the same mesh size when counting entrainment as is used when counting impingement.

(o) Impingement mortality (IM) means death as a result of impingement. Impingement mortality also includes organisms removed from their natural ecosystem and lacking the ability to escape the cooling water intake system, and thus subject to inevitable mortality.

(p) Independent 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 provides the cooling water to other facilities for their use, but may itself also use a portion of the water. An entity that provides potable water to residential populations (e.g., public water system) is not a supplier for purposes of this subpart.

(q) Latent mortality means the delayed mortality of organisms that were initially alive upon being impinged or entrained but that do not survive the delayed effects of impingement and entrainment during an extended holding period. Delayed effects of impingement and entrainment include but are not limited to temperature change, physical stresses, and chemical stresses.

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

(s) Modified traveling screen means a traveling water screen that incorporates measures protective of fish and shellfish, including but not limited to: Screens with collection buckets or equivalent mechanisms designed to minimize turbulence to aquatic life; addition of a guard rail or barrier to prevent loss of fish from the collection system; replacement of screen panel materials with smooth woven mesh, drilled mesh, molded mesh, or similar materials that protect fish from descaling and other abrasive injury; continuous or near-continuous rotation of screens and operation of fish collection equipment to ensure any impinged organisms are recovered as soon as practical; a low pressure wash or gentle vacuum to remove fish prior to any high pressure spray to remove debris from the screens; and a fish handling and return system with sufficient water flow to return the fish directly to the source water in a manner that does not promote predation or re- impingement of the fish, or require a large vertical drop. The Director may approve of fish being returned to water sources other than the original source water, taking into account any recommendations from the Services with respect to endangered or threatened species. Examples of modified traveling screens include, but are not limited to: Modified Ristroph screens with a fish handling and return system, dual flow screens with smooth mesh, and rotary screens with fish returns or vacuum returns.

(t) Moribund means dying; close to death.

(u) New unit means a new “stand- alone” unit at an existing facility where construction of the new unit begins after October 14, 2014 and that does not otherwise meet the definition of a new facility at § 125.83 or is not otherwise already subject to subpart I of this part. A stand-alone unit is a separate unit that is added to a facility for either the same general industrial operation or another purpose. A new unit may have its own dedicated cooling water intake structure, or the new unit may use an existing or modified cooling water intake structure.

(v) Offshore velocity cap means a velocity cap located a minimum of 800 feet from the shoreline. A velocity cap is an open intake designed to change the direction of water withdrawal from vertical to horizontal, thereby creating horizontal velocity patterns that result in avoidance of the intake by fish and other aquatic organisms. For purposes of this subpart, the velocity cap must use bar screens or otherwise exclude marine mammals, sea turtles, and other large aquatic organisms.

(w) Operational measure means a modification to any operation that serves to minimize impact to all life stages of fish and shellfish from the cooling water intake structure. Examples of operational measures include, but are not limited to, more frequent rotation of traveling screens, use of a low pressure wash to remove fish prior to any high pressure spray to remove debris, maintaining adequate volume of water in a fish return, and debris minimization measures such as air sparging of intake screens and/or other measures taken to maintain the design intake velocity.

(x) Social benefits means the increase in social welfare that results from taking an action. Social benefits include private benefits and those benefits not taken into consideration by private decision makers in the actions they choose to take, including effects occurring in the future. Benefits valuation involves measuring the physical and biological effects on the environment from the actions taken. Benefits are generally treated one or more of three ways: A narrative containing a qualitative discussion of environmental effects, a quantified analysis expressed in physical or biological units, and a monetized benefits analysis in which dollar values are applied to quantified physical or biological units. The dollar values in a social benefits analysis are based on the principle of willingness-to-pay (WTP), which captures monetary benefits by measuring what individuals are willing to forgo in order to enjoy a particular benefit. Willingness-to-pay for nonuse values can be measured using benefits transfer or a stated preference survey.

(y) Social costs means costs estimated from the viewpoint of society, rather than individual stakeholders. Social cost represents the total burden imposed on the economy; it is the sum of all opportunity costs incurred associated with taking actions. These opportunity costs consist of the value lost to society of all the goods and services that will not be produced and consumed as a facility complies with permit requirements, and society reallocates resources away from other production activities and towards minimizing adverse environmental impacts.

## § 125.93 [Reserved]

## § 125.94 As an owner or operator of an existing facility, what must I do to comply with this subpart?

(a) Applicable Best Technology Available for Minimizing Adverse Environmental Impact (BTA) standards.

(1) On or after October 14, 2014, the owner or operator of an existing facility with a cumulative design intake flow (DIF) greater than 2 mgd is subject to the BTA (best technology available) standards for impingement mortality under paragraph (c) of this section, and entrainment under paragraph (d) of this section including any measures to protect Federally-listed threatened and endangered species and designated critical habitat established under paragraph (g) of this section.

(2) Prior to October 14, 2014, the owner or operator of an existing facility with a cumulative design intake flow (DIF) greater than 2 mgd is subject to site-specific impingement mortality and entrainment requirements as determined by the Director on a case-by- case Best Professional Judgment basis. The Director’s BTA determination may be based on consideration of some or all of the factors at § 125.98(f)(2) and (3) and the requirements of § 125.94(c). If the Director requires additional information to make the decision on what BTA requirements to include in the applicant’s permit for impingement mortality and entrainment, the Director should consider whether to require any of the information at 40 CFR 122.21(r).

(3) The owner or operator of a new unit is subject to the impingement mortality and entrainment standards under paragraph (e) of this section for all cooling water intake flows used by the new unit. The remainder of the existing facility is subject to the impingement mortality standard under paragraph (c) of this section, and the entrainment standard under paragraph (d) of this section. The entire existing facility including any new units is subject to any measures to protect Federally-listed threatened and endangered species and designated critical habitat established under paragraph (g) of this section.

(b) Compliance with BTA standards.

(1) Aligning compliance deadlines for impingement mortality and entrainment requirements. After issuance of a final permit that establishes the entrainment requirements under § 125.94(d), the owner or operator of an existing facility must comply with the impingement mortality standard in § 125.94(c) as soon as practicable. The Director may establish interim compliance milestones in the permit.

(2) After issuance of a final permit establishing the entrainment requirements under § 125.94(d), the owner or operator of an existing facility must comply with the entrainment standard as soon as practicable, based on a schedule of requirements established by the Director. The Director may establish interim compliance milestones in the permit.

(3) The owner or operator of a new unit at an existing facility must comply with the BTA standards at § 125.94(e) with respect to the new unit upon commencement of the new unit’s operation.

(c) BTA Standards for Impingement Mortality. The owner or operator of an existing facility must comply with one of the alternatives in paragraphs (c)(1) through (7) of this section, except as provided in paragraphs (c)(11) or (12) of this section, when approved by the Director. In addition, a facility may also be subject to the requirements of paragraphs (c)(8), (c)(9), or (g) of this section if the Director requires such additional measures.

(1) Closed-cycle recirculating system. A facility must operate a closed-cycle recirculating system as defined at § 125.92(c). In addition, you must monitor the actual intake flows at a minimum frequency of daily. The monitoring must be representative of normal operating conditions, and must include measuring cooling water withdrawals, make-up water, and blow down volume. In lieu of daily intake flow monitoring, you may monitor your cycles of concentration at a minimum frequency of daily; or

(2) 0.5 Feet Per Second Through-Screen Design Velocity. A facility must operate a cooling water intake structure that has a maximum design through- screen intake velocity of 0.5 feet per second. The owner or operator of the facility must submit information to the Director that demonstrates that the maximum design intake velocity as water passes through the structural components of a screen measured perpendicular to the screen mesh does not exceed 0.5 feet per second. The maximum velocity must be achieved under all conditions, including during minimum ambient source water surface elevations (based on BPJ using hydrological data) and during periods of maximum head loss across the screens or other devices during normal operation of the intake structure; or

(3) 0.5 Feet Per Second Through-Screen Actual Velocity. A facility must operate a cooling water intake structure that has a maximum through-screen intake velocity of 0.5 feet per second. The owner or operator of the facility must submit information to the Director that demonstrates that the maximum intake velocity as water passes through the structural components of a screen measured perpendicular to the screen mesh does not exceed 0.5 feet per second. The maximum velocity must be achieved under all conditions, including during minimum ambient source water surface elevations (based on best professional judgment using hydrological data) and during periods of maximum head loss across the screens or other devices during normal operation of the intake structure. The Director may authorize the owner or operator of the facility to exceed the 0.5 fps velocity at an intake for brief periods for the purpose of maintaining the cooling water intake system, such as backwashing the screen face. If the intake does not have a screen, the maximum intake velocity perpendicular to the opening of the intake must not exceed 0.5 feet per second during minimum ambient source water surface elevations. In addition, you must monitor the velocity at the screen at a minimum frequency of daily. In lieu of velocity monitoring at the screen face, you may calculate the through-screen velocity using water flow, water depth, and the screen open areas; or

(4) Existing offshore velocity cap. A facility must operate an existing offshore velocity cap as defined at § 125.92(v) that was installed on or before October 14, 2014. Offshore velocity caps installed after October 14, 2014 must make either a demonstration under paragraph (c)(6) of this section or meet the performance standard under paragraph (c)(7) of this section. In addition, you must monitor your intake flow at a minimum frequency of daily; or

(5) Modified traveling screens. A facility must operate a modified traveling screen that the Director determines meets the definition at § 125.92(s) and that, after review of the information required in the impingement technology performance optimization study at 40 CFR 122.21(r)(6)(i), the Director determines is the best technology available for impingement reduction at the site. As the basis for the Director’s determination, the owner or operator of the facility must demonstrate the technology is or will be optimized to minimize impingement mortality of all non-fragile species. The Director must include verifiable and enforceable permit conditions that ensure the technology will perform as demonstrated; or

(6) Systems of technologies as the BTA for impingement mortality. A facility must operate a system of technologies, management practices, and operational measures, that, after review of the information required in the impingement technology performance optimization study at 40 CFR 122.21(r)(6)(ii), the Director determines is the best technology available for impingement reduction at your cooling water intake structures. As the basis for the Director’s determination, the owner or operator of the facility must demonstrate the system of technology has been optimized to minimize impingement mortality of all non-fragile species. In addition, the Director’s decision will be informed by comparing the impingement mortality performance data under 40 CFR 122.21(r)(6)(ii)(D) to the impingement mortality performance standard that would otherwise apply under paragraph (c)(7) of this section. The Director must include verifiable and enforceable permit conditions that ensure the system of technologies will perform as demonstrated; or

(7) Impingement mortality performance standard. A facility must achieve a 12-month impingement mortality performance standard of all life stages of fish and shellfish of no more than 24 percent mortality, including latent mortality, for all non-fragile species together that are collected or retained in a sieve with maximum opening dimension of 0.56 inches and kept for a holding period of 18 to 96 hours. The Director may, however, prescribe an alternative holding period. You must conduct biological monitoring at a minimum frequency of monthly to demonstrate your impingement mortality performance. Each month, you must use all of the monitoring data collected during the previous 12 months to calculate the 12-month survival percentage. The 12-month impingement mortality performance standard is the total number of fish killed divided by the total number of fish impinged over the course of the entire 12 months. The owner or operator of the facility must choose whether to demonstrate compliance with this requirement for the entire facility, or for each individual cooling water intake structure for which this paragraph (c)(7) is the selected impingement mortality requirement.

(8) Additional measures for shellfish. The owner or operator must comply with any additional measures, such as seasonal deployment of barrier nets, established by the Director to protect shellfish.

(9) Additional measures for other species. The owner or operator must comply with any additional measures, established by the Director, to protect fragile species.

(10) Reuse of other water for cooling purposes. This impingement mortality standard does not apply to that portion of cooling water that is process water, gray water, waste water, reclaimed water, or other waters reused as cooling water in lieu of water obtained by marine, estuarine, or freshwater intakes.

(11) De minimis rate of impingement. In limited circumstances, rates of impingement may be so low at a facility that additional impingement controls may not be justified. The Director, based on review of site-specific data submitted under 40 CFR 122.21(r), may conclude that the documented rate of impingement at the cooling water intake is so low that no additional controls are warranted. For threatened or endangered species, all unauthorized take is prohibited by the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.). Notice of a determination that no additional impingement controls are warranted must be included in the draft or proposed permit and the Director’s response to all comments on this determination must be included in the record for the final permit.

(12) Low capacity utilization power generating units. If an existing facility has a cooling water intake structure used for one or more existing electric generating units, each with an annual average capacity utilization rate of less than 8 percent averaged over a 24- month block contiguous period, the owner or operator may request the Director consider less stringent requirements for impingement mortality for that cooling water intake structure. The Director may, based on review of site-specific data concerning cooling water system data under 40 CFR 122.21(r)(5), establish the BTA standards for impingement mortality for that cooling water intake structure that are less stringent than paragraphs (c)(1) through (7) of this section.

(d) BTA standards for entrainment for existing facilities. The Director must establish BTA standards for entrainment for each intake on a site-specific basis. These standards must reflect the Director’s determination of the maximum reduction in entrainment warranted after consideration of the relevant factors as specified in § 125.98. The Director may also require periodic reporting on your progress towards installation and operation of site- specific entrainment controls. These reports may include updates on planning, design, and construction or other appropriate topics as required by the Director. If the Director determines that the site-specific BTA standard for entrainment under this paragraph requires performance equivalent to a closed-cycle recirculating system as defined at § 125.92(c), then under § 125.94(c)(1) your facility will comply with the impingement mortality standard for that intake.

(e) BTA standards for impingement mortality and entrainment for new units at existing facilities. The owner or operator of a new unit at an existing facility must achieve the impingement mortality and entrainment standards provided in either paragraph (e)(1) or (2) of this section, except as provided in paragraph (e)(4) of this section, for each cooling water intake structure used to provide cooling water to the new unit.

(1) Requirements for new units. The owner or operator of the facility must reduce the design intake flow for the new unit, at a minimum, to a level commensurate with that which can be attained by the use of a closed-cycle recirculating system for the same level of cooling for the new unit.

(2) Alternative requirements for new units. The owner or operator of a new unit at an existing facility must demonstrate to the Director that the technologies and operational measures employed will reduce the level of adverse environmental impact from any cooling water intake structure used to supply cooling water to the new unit to a comparable level to that which would be achieved under § 125.94(e)(1). This demonstration must include a showing that the entrainment reduction is equivalent to 90 percent or greater of the reduction that could be achieved through compliance with § 125.94(e)(1). In addition this demonstration must include a showing that the impacts to fish and shellfish, including important forage and predator species, within the watershed will be comparable to those which would result under the requirements of § 125.94(e)(1).

(3) This standard does not apply to:

(i) Process water, gray water, waste water, reclaimed water, or other waters reused as cooling water in lieu of water obtained by marine, estuarine, or freshwater intakes;

(ii) Cooling water used by manufacturing facilities for contact cooling purposes;

(iii) Portions of those water withdrawals for auxiliary plant cooling uses comprising less than two mgd of the facility’s flow; and

(iv) Any quantity of emergency back-up water flows.

(4) The owner or operator of a facility must comply with any alternative requirements established by the Director pursuant to § 125.98(b)(7).

(5) For cooling water flows excluded by paragraph (e)(3) of this section, the Director may establish additional BTA standards for impingement mortality and entrainment on a site-specific basis.

(f) Nuclear facilities. If the owner or operator of a nuclear facility demonstrates to the Director, upon the Director’s consultation with the Nuclear Regulatory Commission, the Department of Energy, or the Naval Nuclear Propulsion Program, that compliance with this subpart would result in a conflict with a safety requirement established by the Commission, the Department, or the Program, the Director must make a site-specific determination of best technology available for minimizing adverse environmental impact that would not result in a conflict with the Commission’s, the Department’s, or the Program’s safety requirement.

(g) Additional measures to protect Federally-listed threatened and endangered species and designated critical habitat. The Director may establish in the permit additional control measures, monitoring requirements, and reporting requirements that are designed to minimize incidental take, reduce or remove more than minor detrimental effects to Federally-listed species and designated critical habitat, or avoid jeopardizing Federally-listed species or destroying or adversely modifying designated critical habitat (e.g., prey base). Such control measures, monitoring requirements, and reporting requirements may include measures or requirements identified by an appropriate Field Office of the U.S. Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service during the 60 day review period pursuant to § 125.98(h) or the public notice and comment period pursuant to 40 CFR 124.10. Where established in the permit by the Director, the owner or operator must implement any such requirements.

(h) Interim BTA requirements. An owner or operator of a facility may be subject to interim BTA requirements established by the Director in the permit on a site-specific basis.

(i) More stringent standards. The Director must establish more stringent requirements as best technology available for minimizing adverse environmental impact if the Director determines that compliance with the applicable requirements of this section would not meet the requirements of applicable State or Tribal law, including compliance with applicable water quality standards (including designated uses, criteria, and antidegradation requirements).

(j) The owner or operator of a facility subject to this subpart must:

(1) Submit and retain permit application and supporting information as specified in § 125.95;

(2) Conduct compliance monitoring as specified in § 125.96; and

(3) Report information and data and keep records as specified in § 125.97.

## § 125.95 Permit application and supporting information requirements.

(a) Permit application submittal timeframe for existing facilities. (1) The owner or operator of a facility subject to this subpart whose currently effective permit expires after July 14, 2018, must submit to the Director the information required in the applicable provisions of 40 CFR 122.21(r) when applying for a subsequent permit (consistent with the owner or operator’s duty to reapply pursuant to 40 CFR 122.21(d)).

(2) The owner or operator of a facility subject to this subpart whose currently effective permit expires prior to or on July 14, 2018, may request the Director to establish an alternate schedule for the submission of the information required in 40 CFR 122.21(r) when applying for a subsequent permit (consistent with the owner or operator’s duty to reapply pursuant to 40 CFR 122.21(d)). If the owner or operator of the facility demonstrates that it could not develop the required information by the applicable date for submission, the Director must establish an alternate schedule for submission of the required information.

(3) The Director may waive some or all of the information requirements of 40 CFR 122.21(r) if the intake is located in a manmade lake or reservoir and the fisheries are stocked and managed by a State or Federal natural resources agency or the equivalent. If the manmade lake or reservoir contains Federally-listed threatened and endangered species, or is designated critical habitat, such a waiver shall not be granted.

(b) Permit application submittal timeframe for new units. For the owner or operator of any new unit at an existing facility subject to this subpart:

(1) You must submit the information required in 40 CFR 122.21(r) for the new unit to the Director no later than 180 days before the planned commencement of cooling water withdrawals for the operation of the new unit. If you have already submitted the required information in your previous permit application, you may choose to submit an update to the required information.

(2) The owner or operator is encouraged to submit their permit applications well in advance of the 180 day requirement to avoid delay.

(c) Permit applications. After the initial submission of the 40 CFR 122.21(r) permit application studies after October 14, 2014, the owner or operator of a facility may, in subsequent permit applications, request to reduce the information required, if conditions at the facility and in the waterbody remain substantially unchanged since the previous application so long as the relevant previously submitted information remains representative of current source water, intake structure, cooling water system, and operating conditions. Any habitat designated as critical or species listed as threatened or endangered after issuance of the current permit whose range of habitat or designated critical habit includes waters where a facility intake is located constitutes potential for a substantial change that must be addressed by the owner/operator in subsequent permit applications, unless the facility received an exemption pursuant to 16 U.S.C. 1536(o) or a permit pursuant to 16 U.S.C. 1539(a) or there is no reasonable expectation of take. The owner or operator of a facility must submit its request for reduced cooling water intake structure and waterbody application information to the Director at least two years and six months prior to the expiration of its NPDES permit. The owner or operator’s request must identify each element in this subsection that it determines has not substantially changed since the previous permit application and the basis for the determination. The Director has the discretion to accept or reject any part of the request.

(d) The Director has the discretion to request additional information to supplement the permit application, including a request to inspect a facility.

(e) Permit application records. The owner or operator of a facility must keep records of all submissions that are part of its permit application until the subsequent permit is issued to document compliance with the requirements of this section. If the Director approves a request for reduced permit application studies under § 125.95(a) or (c) or § 125.98(g), the owner or operator of a facility must keep records of all submissions that are part of the previous permit application until the subsequent permit is issued.

(f) In addition, in developing its permit application, the owner or operator of an existing facility or new unit at an existing facility must, based on readily available information at the time of the permit application, instead of the information required at § 122.21(r)(4)(vi) of this chapter identify all Federally-listed threatened and endangered species and/or designated critical habitat that are or may be present in the action area.

(g) Certification. The owner or operator of a facility must certify that its permit application is true, accurate and complete pursuant to § 122.22(d) of this chapter.

## § 125.96 Monitoring requirements.

(a) Monitoring requirements for impingement mortality for existing facilities. The Director may establish monitoring requirements in addition to those specified at § 125.94(c), including, for example, biological monitoring, intake velocity and flow measurements. If the Director establishes such monitoring, the specific protocols will be determined by the Director.

(b) Monitoring requirements for entrainment for existing facilities. Monitoring requirements for entrainment will be determined by the Director on a site-specific basis, as appropriate, to meet requirements under § 125.94(d).

(c) Additional monitoring requirements for existing facilities. The Director may require additional monitoring for impingement or entrainment including, but not limited to, the following:

(1) The Director may require additional monitoring if there are changes in operating conditions at the facility or in the source waterbody that warrant a re-examination of the operational conditions identified at 40 CFR 122.21(r).

(2) The Director may require additional monitoring for species not subject to the BTA requirements for impingement mortality at § 125.95(c). Such monitoring requirements will be determined by the Director on a site- specific basis.

(d) Monitoring requirements for new units at existing facilities. Monitoring is required to demonstrate compliance with the requirements of § 125.94(e).

(1) The Director may establish monitoring requirements for impingement, impingement mortality, and entrainment of the 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). Monitoring methods used must be consistent with those used for the Source Water Baseline Biological Characterization at 40 CFR 122.21(r)(4). If the Director establishes such monitoring requirements, the frequency of monitoring and specific protocols will be determined by the Director.

(2) If your facility is subject to the requirements of § 125.94(e)(1) or (2), the frequency of flow monitoring and velocity monitoring must be daily and must be representative of normal operating conditions. Flow monitoring must include measuring cooling water withdrawals, make-up water, and blowdown volume. The Director may require additional monitoring necessary to demonstrate compliance with § 125.94(e).

(3) If your facility is subject to the requirements of § 125.94(e)(2), you must monitor to demonstrate achievement of reductions commensurate with a closed- cycle recirculating system. You must monitor entrainable organisms at a proximity to the intake that is representative of the entrainable organisms in the absence of the intake structure. You must also monitor the latent entrainment mortality in front of the intake structure. Mortality after passing the cooling water intake structure must be counted as 100 percent mortality unless you have demonstrated to the approval of the Director that the mortality for each species is less than 100 percent. Monitoring must be representative of the cooling water intake when the structure is in operation. In addition, sufficient samples must be collected to allow for calculation of annual average entrainment levels of all life stages of fish and shellfish. Specific monitoring protocols and frequency of monitoring will be determined by the Director. You must follow the monitoring frequencies identified by the Director for at least two years after the initial permit issuance. After that time, the Director may approve a request for less frequent monitoring in the remaining years of the permit term and when a subsequent permit is reissued. The monitoring must measure the total count of entrainable organisms or density of organisms, unless the Director approves of a different metric for such measurements. In addition, you must monitor the AIF for each intake. The AIF must be measured at the same time as the samples of entrainable organisms are collected. The Director may require additional monitoring necessary to demonstrate compliance with § 125.94(e).

(4) The Director may require additional monitoring for impingement or entrainment at the cooling water intake structure used by a new unit including, but not limited to, the following:

(i) The Director may require additional monitoring if there are changes in operating conditions at the facility or in the source waterbody that warrant a re-examination of the operational conditions identified at 40 CFR 122.21(r).

(ii) The Director may require additional monitoring for species not subject to the BTA requirements for impingement mortality at § 125.95(c). Such monitoring requirements will be determined by the Director on a site- specific basis.

(e) 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 such inspections at least weekly to ensure that any technologies operated to comply with § 125.94 are maintained and operated to function as designed including those installed to protect Federally-listed threatened or endangered species or designated critical habitat. The Director may establish alternative procedures if this requirement is not feasible (e.g., an offshore intake, velocity cap, or during periods of inclement weather).

(f) Request for reduced monitoring. For facilities that are subject to § 125.94(c)(7) and where the facility’s cooling water intake structure does not directly or indirectly affect Federally- listed threatened and endangered species, or designated critical habitat, the owner or operator of the facility may request the Director to reduce monitoring requirements after the first full permit term in which these monitoring requirements are implemented, on the condition that the results of the monitoring to date demonstrate that the owner or operator of the facility has consistently operated the intake as designed and is meeting the requirements of § 125.94(c).

(g) Additional monitoring related to Federally-listed threatened and endangered species and designated critical habitat at existing facilities. Where the Director requires additional measures to protect Federally-listed threatened or endangered species or designated critical habitat pursuant to § 125.94(g), the Director shall require monitoring associated with those measures.

## § 125.97 Other permit reporting and recordkeeping requirements.

The owner or operator of an existing facility subject to this subpart is required to submit to the Director the following information:

(a) Monitoring reports. Discharge Monitoring Reports (DMRs) (or equivalent State reports) and results of all monitoring, demonstrations, and other information required by the permit sufficient to determine compliance with the permit conditions and requirements established under § 125.94.

(b) Status reports. Any reports required by the Director under § 125.94.

(c) Annual certification statement and report. An annual certification statement signed by the responsible corporate officer as defined in § 122.22 of this chapter subject to the following:

(1) If the information contained in the previous year’s annual certification is still pertinent, you may simply state as such in a letter to the Director and the letter, along with any applicable data submission requirements specified in this section shall constitute the annual certification.

(2) If you have substantially modified operation of any unit at your facility that impacts cooling water withdrawals or operation of your cooling water intake structures, you must provide a summary of those changes in the report. In addition, you must submit revisions to the information required at § 122.21(r) of this chapter in your next permit application.

(d) Permit reporting records retention. Records of all submissions that are part of the permit reporting requirements of this section must be retained until the subsequent permit is issued. In addition, the Director may require supplemental recordkeeping such as compliance monitoring under § 125.96, supplemental data collection under 40 CFR 122.21, additional monitoring or data collection under § 125.95.

(e) Reporting. The Director has the discretion to require additional reporting when necessary to establish permit compliance and may provide for periodic inspection of the facility. The Director may require additional reporting including but not limited to the records required under § 125.97(d).

(f) Records of Director’s Determination of BTA for Entrainment. All records supporting the Director’s Determination of BTA for Entrainment under § 125.98(f) or (g) must be retained until such time as the Director revises the Determination of BTA for Entrainment in the permit.

(g) Additional reporting requirements related to Federally-listed threatened and endangered species or designated critical habitat. Where the Director requires additional measures to protect Federally-listed threatened or endangered species or critical habitat pursuant to § 125.94(g), the Director shall require reporting associated with those measures.

## § 125.98 Director requirements.

(a) Permit application. The Director must review the materials submitted by the applicant under 40 CFR 122.21(r) for completeness pursuant to 40 CFR 122.21(e) at the time of initial permit application and any application for a subsequent permit.

(b) Permitting requirements. Section 316(b) requirements are implemented through an NPDES permit. Based on the information submitted in the permit application, the Director must determine the requirements and conditions to include in the permit.

(1) Such permits, including permits with alternative requirements under paragraph (b)(7) of this section, must include the following language as a permit condition: “Nothing in this permit authorizes take for the purposes of a facility’s compliance with the Endangered Species Act.”

(2) In the case of any permit issued after July 14, 2018, at a minimum, the permit must include conditions to implement and ensure compliance with the impingement mortality standard at § 125.94(c) and the entrainment standard at § 125.94(d), including any measures to protect Federally-listed threatened and endangered species and designated critical habitat required by the Director. In addition, the permit must include conditions, management practices and operational measures necessary to ensure proper operation of any technology used to comply with the impingement mortality standard at § 125.94(c) and the entrainment standard at § 125.94(d). Pursuant to § 125.94(g), the permit may include additional control measures, monitoring requirements, and reporting requirements that are designed to minimize incidental take, reduce or remove more than minor detrimental effects to Federally-listed species and designated critical habitat, or avoid jeopardizing Federally-listed species or destroying or adversely modifying designated critical habitat (e.g. prey base). Such control measures, monitoring requirements, and reporting requirements may include measures or requirements identified by the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service during the 60 day review period pursuant to § 125.98(h) or the public notice and comment period pursuant to 40 CFR 124.10. The Director may include additional permit requirements if:

(i) Based on information submitted to the Director by any fishery management agency or other relevant information, there are migratory or sport or commercial species subject to entrainment that may be directly or indirectly affected by the cooling water intake structure; or

(ii) It is determined by the Director, based on information submitted by any fishery management agencies or other relevant information, that operation of the facility, after meeting the entrainment standard of this section, would still result in undesirable cumulative stressors to Federally-listed and proposed, threatened and endangered species, and designated and proposed critical habitat.

(3) At a minimum, the permit must require the permittee to monitor as required at §§ 125.94 and 125.96.

(4) At a minimum, the permit must require the permittee to report and keep the records specified at § 125.97.

(5) After October 14, 2014, in the case of any permit issued before July 14, 2018 for which the Director, pursuant to § 125.95(a)(2), has established an alternate schedule for submission of the information required by 40 CFR 122.21(r), the Director may include permit conditions to ensure that, for any subsequent permit, the Director will have all the information required by 40 CFR 122.21(r) necessary to establish impingement mortality and entrainment BTA requirements under § 125.94(c) and (d). In addition, the Director must establish interim BTA requirements in the permit based on the Director’s best professional judgment on a site-specific basis in accordance with § 125.90(b) and 40 CFR 401.14.

(6) In the case of any permit issued after October 14, 2014, and applied for before October 14, 2014, the Director may include permit conditions to ensure that the Director will have all the information under 40 CFR 122.21(r) necessary to establish impingement mortality and entrainment BTA requirements under § 125.94(c) and (d) for the subsequent permit. The Director must establish interim BTA requirements in the permit on a site- specific basis based on the Director’s best professional judgment in accordance with § 125.90(b) and 40 CFR 401.14.

(7) For new units at existing facilities, the Director may establish alternative requirements if the data specific to the facility indicate that compliance with the requirements of § 125.94(e)(1) or (2) for each new unit would result in compliance costs wholly out of proportion to the costs EPA considered in establishing the requirements at issue, or would result in significant adverse impacts on local air quality, significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on local energy markets:

(i) The alternative requirements must achieve a level of performance as close as practicable to the requirements of § 125.94(e)(1);

(ii) The alternative requirements must ensure compliance with these regulations, other provisions of the Clean Water Act, and State and Tribal law;

(iii) The burden is on the owner or operator of the facility requesting the alternative requirement to demonstrate that alternative requirements should be authorized for the new unit.

(8) The Director may require additional measures such as seasonal deployment of barrier nets, to protect shellfish.

(c) Compliance schedule. When the Director establishes a schedule of requirements under § 125.94(b), the schedule must provide for compliance with § 125.94(c) and (d) as soon as practicable. When establishing a schedule for electric power generating facilities, the Director should consider measures to maintain adequate energy reliability and necessary grid reserve capacity during any facility outage. These may include establishing a staggered schedule for multiple facilities serving the same localities. The Director may confer with independent system operators and state public utility regulatory agencies when establishing a schedule for electric power generating facilities. The Director may determine that extenuating circumstances (e.g., lengthy scheduled outages, future production schedules) warrant establishing a different compliance date for any manufacturing facility.

(d) Supplemental Technologies and Monitoring. The Director may require additional technologies for protection of fragile species, and may require additional monitoring of species of fish and shellfish not already required under § 125.95(c). The Director may consider data submitted by other interested parties. The Director may also require additional study and monitoring if a threatened or endangered species has been identified in the vicinity of the intake.

(e) Impingement technology performance optimization study. The owner or operator of a facility that chooses to comply with § 125.94(c)(5) or (6) must demonstrate in its impingement technology performance optimization study that the operation of its impingement reduction technology has been optimized to minimize impingement mortality of non-fragile species. The Director may request further data collection and information as part of the impingement technology performance optimization study, including extending the study period beyond two years. The Director may also consider previously collected biological data and performance reviews as part of the study. The Director must include in the permit verifiable and enforceable permit conditions that ensure the modified traveling screens or other systems of technologies will perform as demonstrated. The Director may waive all or part of the impingement technology performance optimization study at 40 CFR122.21(r)(6) after the first permit cycle wherein the permittee is deemed in compliance with § 125.94(c).

(f) Site-specific entrainment requirements. The Director must establish site-specific requirements for entrainment after reviewing the information submitted under 40 CFR 122.21(r) and § 125.95. These entrainment requirements must reflect the Director’s determination of the maximum reduction in entrainment warranted after consideration of factors relevant for determining the best technology available for minimizing adverse environmental impact at each facility. These entrainment requirements may also reflect any control measures to reduce entrainment of Federally-listed threatened and endangered species and designated critical habitat (e.g. prey base). The Director may reject an otherwise available technology as a basis for entrainment requirements if the Director determines there are unacceptable adverse impacts including impingement, entrainment, or other adverse effects to Federally-listed threatened or endangered species or designated critical habitat. Prior to any permit reissuance after July 14, 2018, the Director must review the performance of the facility’s installed entrainment technology to determine whether it continues to meet the requirements of § 125.94(d).

(1) The Director must provide a written explanation of the proposed entrainment determination in the fact sheet or statement of basis for the proposed permit under 40 CFR 124.7 or 124.8. The written explanation must describe why the Director has rejected any entrainment control technologies or measures that perform better than the selected technologies or measures, and must reflect consideration of all reasonable attempts to mitigate any adverse impacts of otherwise available better performing entrainment technologies.

(2) The proposed determination in the fact sheet or statement of basis must be based on consideration of any additional information required by the Director at § 125.98(i) and the following factors listed below. The weight given to each factor is within the Director’s discretion based upon the circumstances of each facility.

(i) Numbers and types of organisms entrained, including, specifically, the numbers and species (or lowest taxonomic classification possible) of Federally-listed, threatened and endangered species, and designated critical habitat (e.g., prey base);

(ii) Impact of changes in particulate emissions or other pollutants associated with entrainment technologies;

(iii) Land availability in as much as it relates to the feasibility of entrainment technology;

(iv) Remaining useful plant life; and

(v) Quantified and qualitative social benefits and costs of available entrainment technologies when such information on both benefits and costs is of sufficient rigor to make a decision.

(3) The proposed determination in the fact sheet or statement of basis may be based on consideration of the following factors to the extent the applicant submitted information under 40 CFR 122.21(r) on these factors:

(i) Entrainment impacts on the waterbody;

(ii) Thermal discharge impacts;

(iii) Credit for reductions in flow associated with the retirement of units occurring within the ten years preceding October 14, 2014;

(iv) Impacts on the reliability of energy delivery within the immediate area;

(v) Impacts on water consumption; and

(vi) Availability of process water, gray water, waste water, reclaimed water, or other waters of appropriate quantity and quality for reuse as cooling water.

(4) If all technologies considered have social costs not justified by the social benefits, or have unacceptable adverse impacts that cannot be mitigated, the Director may determine that no additional control requirements are necessary beyond what the facility is already doing. The Director may reject an otherwise available technology as a BTA standard for entrainment if the social costs are not justified by the social benefits.

(g) Ongoing permitting proceedings. In the case of permit proceedings begun prior to October 14, 2014 whenever the Director has determined that the information already submitted by the owner or operator of the facility is sufficient, the Director may proceed with a determination of BTA standards for impingement mortality and entrainment without requiring the owner or operator of the facility to submit the information required in 40 CFR 122.21(r). The Director’s BTA determination may be based on some or all of the factors in paragraphs (f)(2) and (3) of this section and the BTA standards for impingement mortality at § 125.95(c). In making the decision on whether to require additional information from the applicant, and what BTA requirements to include in the applicant’s permit for impingement mortality and site-specific entrainment, the Director should consider whether any of the information at 40 CFR 122.21(r) is necessary.

(h) The Director must transmit all permit applications for facilities subject to this subpart to the appropriate Field Office of the U.S. Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service upon receipt for a 60 day review prior to public notice of the draft or proposed permit. The Director shall provide the public notice and an opportunity to comment as required under 40 CFR 124.10 and must submit a copy of the fact sheet or statement of basis (for EPA- issued permits), the permit application (if any) and the draft permit (if any) to the appropriate Field Office of the U.S. Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service. This includes notice of specific cooling water intake structure requirements at § 124.10(d)(1)(ix) of this chapter, notice of the draft permit, and any specific information the Director has about threatened or endangered species and critical habitat that are or may be present in the action area, including any proposed control measures and monitoring and reporting requirements for such species and habitat.

(i) Additional information. In implementing the Director’s responsibilities under the provisions of this subpart, the Director is authorized to inspect the facility and to request additional information needed by the Director for determining permit conditions and requirements, including any additional information from the facility recommended by the Services upon review of the permit application under paragraph (h) of this section.

(j) Nothing in this subpart authorizes the take, as defined at 16 U.S.C. 1532(19), of threatened or endangered species of fish or wildlife. Such take is prohibited under the Endangered Species Act unless it is exempted pursuant to 16 U.S.C. 1536(o) or permitted pursuant to 16 U.S.C. 1539(a). Absent such exemption or permit, any facility operating under the authority of this regulation must not take threatened or endangered wildlife.

(k) The Director must submit at least annually to the appropriate EPA Regional Office facilities’ annual reports submitted pursuant to § 125.97(g), for compilation and transmittal to the Services.

## § 125.99 [Reserved]