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Title 40

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

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

Source: 44 FR 32948, June 7, 1979, unless otherwise noted.

Subpart A - Criteria and Standards for Imposing Technology-Based Treatment Requirements Under Sections 301(b) and 402 of the Act

§ 125.1 Purpose and scope.

This subpart establishes criteria and standards for the imposition of technology-based treatment requirements in permits under section 301(b) of the Act, including the application of EPA promulgated effluent limitations and case-by-case determinations of effluent limitations under section 402(a)(1) of the Act.

§ 125.2 Definitions.

For the purposes of this part, any reference to *the Act* shall mean the Clean Water Act of 1977 (CWA). Unless otherwise noted, the definitions in parts 122, 123 and 124 apply to this part.

[45 FR 33512, May 19, 1980]

§ 125.3 Technology-based treatment requirements in permits.

- (a) **General.** Technology-based treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act. (See §§ 122.41, 122.42 and 122.44 for a discussion of additional or more stringent effluent limitations and conditions.) Permits shall contain the following technology-based treatment requirements in accordance with the following statutory deadlines;
- (1) For POTW's, effluent limitations based upon:
 - (i) Secondary treatment - from date of permit issuance; and
 - (ii) [Reserved]
 - (2) For dischargers other than POTWs except as provided in § 122.29(d), effluent limitations requiring:
 - (i) The best practicable control technology currently available (BPT) -
 - (A) For effluent limitations promulgated under Section 304(b) after January 1, 1982 and requiring a level of control substantially greater or based on fundamentally different control technology than under permits for an industrial category issued before such date, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b) and in no case later than March 31, 1989;
 - (B) For effluent limitations established on a case-by-case basis based on Best Professional Judgment (BPJ) under Section 402(a)(1)(B) of the Act in a permit issued after February 4, 1987, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989;
 - (C) For all other BPT effluent limitations compliance is required from the date of permit issuance.
 - (ii) For conventional pollutants, the best conventional pollutant control technology (BCT) -
 - (A) For effluent limitations promulgated under section 304(b), as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989.
 - (B) For effluent limitations established on a case-by-case (BPJ) basis under section 402(a)(1)(B) of the Act in a permit issued after February 4, 1987, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989;

- (iii) For all toxic pollutants referred to in Committee Print No. 95-30, House Committee on Public Works and Transportation, the best available technology economically achievable (BAT) -
 - (A) For effluent limitations established under section 304(b), as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989.
 - (B) For permits issued on a case-by-case (BPJ) basis under section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989.
 - (iv) For all toxic pollutants other than those listed in Committee Print No. 95-30, effluent limitations based on BAT -
 - (A) For effluent limitations promulgated under section 304(b) compliance is required as expeditiously as practicable, but in no case later than three years after the date such limitations are promulgated under section 304(b) and in no case later than March 31, 1989.
 - (B) For permits issued on a case-by-case (BPJ) basis under Section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but in no case later than 3 years after the date such limitations are established and in no case later than March 31, 1989.
 - (v) For all pollutants which are neither toxic nor conventional pollutants, effluent limitations based on BAT -
 - (A) For effluent limitations promulgated under section 304(b), compliance is required as expeditiously as practicable but in no case later than 3 years after the date such limitations are established and in no case later than March 31, 1989.
 - (B) For permits issued on a case-by-case (BPJ) basis under section 402(a)(1)(B) of the Act after February 4, 1987 establishing BAT effluent limitations compliance is required as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989.
- (b) **Statutory variances and extensions.**
- (1) The following variances from technology-based treatment requirements are authorized by the Act and may be applied for under § 122.21;
 - (i) For POTW's, a section 301(h) marine discharge variance from secondary treatment (subpart G);
 - (ii) For dischargers other than POTW's;
 - (A) A section 301(c) economic variance from BAT (subpart E);
 - (B) A section 301(g) water quality related variance from BAT (subpart F); and
 - (C) A section 316(a) thermal variance from BPT, BCT and BAT (subpart H).
 - (2) The following extensions of deadlines for compliance with technology-based treatment requirements are authorized by the Act and may be applied for under § 124.53:
 - (i) For POTW's a section 301(i) extension of the secondary treatment deadline (subpart J);
 - (ii) For dischargers other than POTW's:
 - (A) A section 301(i) extension of the BPT deadline (subpart J); and
 - (B) A section 301(k) extension of the BAT deadline (subpart C).
- (c) **Methods of imposing technology-based treatment requirements in permits.** Technology-based treatment requirements may be imposed through one of the following three methods:
- (1) Application of EPA-promulgated effluent limitations developed under section 304 of the Act to dischargers by category or subcategory. These effluent limitations are not applicable to the extent that they have been remanded or withdrawn. However, in the case of a court remand, determinations underlying effluent limitations shall be binding in permit issuance proceedings where those determinations are not required to be reexamined by a court remanding the regulations. In addition, dischargers may seek fundamentally different factors variances from these effluent limitations under § 122.21 and subpart D of this part.

- (2) On a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable. The permit writer shall apply the appropriate factors listed in § 125.3(d) and shall consider:
- (i) The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and
 - (ii) Any unique factors relating to the applicant.
- [Comment: These factors must be considered in all cases, regardless of whether the permit is being issued by EPA or an approved State.]
- (3) Through a combination of the methods in paragraphs (d) (1) and (2) of this section. Where promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis in order to carry out the provisions of the Act.
- (4) Limitations developed under paragraph (d)(2) of this section may be expressed, where appropriate, in terms of toxicity (e.g., "the LC₅₀ for fat head minnow of the effluent from outfall 001 shall be greater than 25%"). *Provided*, That is shown that the limits reflect the appropriate requirements (for example, technology-based or water-quality-based standards) of the Act.
- (d) In setting case-by-case limitations pursuant to § 125.3(c), the permit writer must consider the following factors:
- (1) **For BPT requirements:**
 - (i) The total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application;
 - (ii) The age of equipment and facilities involved;
 - (iii) The process employed;
 - (iv) The engineering aspects of the application of various types of control techniques;
 - (v) Process changes; and
 - (vi) Non-water quality environmental impact (including energy requirements).
 - (2) **For BCT requirements:**
 - (i) The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived;
 - (ii) The comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources;
 - (iii) The age of equipment and facilities involved;
 - (iv) The process employed;
 - (v) The engineering aspects of the application of various types of control techniques;
 - (vi) Process changes; and
 - (vii) Non-water quality environmental impact (including energy requirements).
 - (3) **For BAT requirements:**
 - (i) The age of equipment and facilities involved;
 - (ii) The process employed;
 - (iii) The engineering aspects of the application of various types of control techniques;
 - (iv) Process changes;
 - (v) The cost of achieving such effluent reduction; and
 - (vi) Non-water quality environmental impact (including energy requirements).
- (e) Technology-based treatment requirements are applied prior to or at the point of discharge.

- (f) Technology-based treatment requirements cannot be satisfied through the use of "non-treatment" techniques such as flow augmentation and in-stream mechanical aerators. However, these techniques may be considered as a method of achieving water quality standards on a case-by-case basis when:
- (1) The technology-based treatment requirements applicable to the discharge are not sufficient to achieve the standards;
 - (2) The discharger agrees to waive any opportunity to request a variance under section 301 (c), (g) or (h) of the Act; and
 - (3) The discharger demonstrates that such a technique is the preferred environmental and economic method to achieve the standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available methods.
- (g) Technology-based effluent limitations shall be established under this subpart for solids, sludges, filter backwash, and other pollutants removed in the course of treatment or control of wastewaters in the same manner as for other pollutants.
- (h)
- (1) The Director may set a permit limit for a conventional pollutant at a level more stringent than the best conventional pollution control technology (BCT), or a limit for a nonconventional pollutant which shall not be subject to modification under section 301 (c) or (g) of the Act where:
 - (i) Effluent limitations guidelines specify the pollutant as an indicator for a toxic pollutant, or
 - (ii)
 - (A) The limitation reflects BAT-level control of discharges of one or more toxic pollutants which are present in the waste stream, and a specific BAT limitation upon the toxic pollutant(s) is not feasible for economic or technical reasons;
 - (B) The permit identifies which toxic pollutants are intended to be controlled by use of the limitation; and
 - (C) The fact sheet required by § 124.56 sets forth the basis for the limitation, including a finding that compliance with the limitation will result in BAT-level control of the toxic pollutant discharges identified in paragraph (h)(1)(ii)(B) of this section, and a finding that it would be economically or technically infeasible to directly limit the toxic pollutant(s).
 - (2) The Director may set a permit limit for a conventional pollutant at a level more stringent than BCT when:
 - (i) Effluent limitations guidelines specify the pollutant as an indicator for a hazardous substance, or
 - (ii)
 - (A) The limitation reflects BAT-level control of discharges (or an appropriate level determined under section 301(c) or (g) of the Act) of one or more hazardous substance(s) which are present in the waste stream, and a specific BAT (or other appropriate) limitation upon the hazardous substance(s) is not feasible for economic or technical reasons;
 - (B) The permit identifies which hazardous substances are intended to be controlled by use of the limitation; and
 - (C) The fact sheet required by § 124.56 sets forth the basis for the limitation, including a finding that compliance with the limitations will result in BAT-level (or other appropriate level) control of the hazardous substances discharges identified in paragraph (h)(2)(ii)(B) of this section, and a finding that it would be economically or technically infeasible to directly limit the hazardous substance(s).
 - (iii) Hazardous substances which are also toxic pollutants are subject to paragraph (h)(1) of this section.
 - (3) The Director may not set a more stringent limit under the preceding paragraphs if the method of treatment required to comply with the limit differs from that which would be required if the toxic pollutant(s) or hazardous substance(s) controlled by the limit were limited directly.
 - (4) Toxic pollutants identified under paragraph (h)(1) of this section remain subject to the requirements of § 122.42(a)(1) (notification of increased discharges of toxic pollutants above levels reported in the application form).

(Clean Water Act, Safe Drinking Water Act, Clean Air Act, Resource Conservation and Recovery Act: 42 U.S.C. 6905, 6912, 6925, 6927, 6974)

[44 FR 32948, June 7, 1979, as amended at 45 FR 33512, May 19, 1980; 48 FR 14293, Apr. 1, 1983; 49 FR 38052, Sept. 26, 1984; 50 FR 6941, Feb. 19, 1985; 54 FR 257, Jan. 4, 1989; 84 FR 3338, Feb. 12, 2019]

Subpart B - Criteria for Issuance of Permits to Aquaculture Projects

§ 125.10 Purpose and scope.

- (a) These regulations establish guidelines under sections 318 and 402 of the Act for approval of any discharge of pollutants associated with an aquaculture project.
- (b) The regulations authorize, on a selective basis, controlled discharges which would otherwise be unlawful under the Act in order to determine the feasibility of using pollutants to grow aquatic organisms which can be harvested and used beneficially. EPA policy is to encourage such projects, while at the same time protecting other beneficial uses of the waters.
- (c) Permits issued for discharges into aquaculture projects under this subpart are NPDES permits and are subject to the applicable requirements of parts 122, 123 and 124. Any permit shall include such conditions (including monitoring and reporting requirements) as are necessary to comply with those parts. Technology-based effluent limitations need not be applied to discharges into the approved project except with respect to toxic pollutants.

§ 125.11 Criteria.

- (a) No NPDES permit shall be issued to an aquaculture project unless:
 - (1) The Director determines that the aquaculture project:
 - (i) Is intended by the project operator to produce a crop which has significant direct or indirect commercial value (or is intended to be operated for research into possible production of such a crop); and
 - (ii) Does not occupy a designated project area which is larger than can be economically operated for the crop under cultivation or than is necessary for research purposes.
 - (2) The applicant has demonstrated, to the satisfaction of the Director, that the use of the pollutant to be discharged to the aquaculture project will result in an increased harvest of organisms under culture over what would naturally occur in the area;
 - (3) The applicant has demonstrated, to the satisfaction of the Director, that if the species to be cultivated in the aquaculture project is not indigenous to the immediate geographical area, there will be minimal adverse effects on the flora and fauna indigenous to the area, and the total commercial value of the introduced species is at least equal to that of the displaced or affected indigenous flora and fauna;
 - (4) The Director determines that the crop will not have a significant potential for human health hazards resulting from its consumption;
 - (5) The Director determines that migration of pollutants from the designated project area to water outside of the aquaculture project will not cause or contribute to a violation of water quality standards or a violation of the applicable standards and limitations applicable to the supplier of the pollutant that would govern if the aquaculture project were itself a point source. The approval of an aquaculture project shall not result in the enlargement of a pre-existing mixing zone area beyond what had been designated by the State for the original discharge.
- (b) No permit shall be issued for any aquaculture project in conflict with a plan or an amendment to a plan approved under section 208(b) of the Act.
- (c) No permit shall be issued for any aquaculture project located in the territorial sea, the waters of the contiguous zone, or the oceans, except in conformity with guidelines issued under section 403(c) of the Act.
- (d) Designated project areas shall not include a portion of a body of water large enough to expose a substantial portion of the indigenous biota to the conditions within the designated project area. For example, the designated project area shall not include the entire width of a watercourse, since all organisms indigenous to that watercourse might be subjected to discharges of pollutants that would, except for the provisions of section 318 of the Act, violate section 301 of the Act.
- (e) Any modifications caused by the construction or creation of a reef, barrier or containment structure shall not unduly alter the tidal regimen of an estuary or interfere with migrations of unconfined aquatic species.

[Comment: Any modifications described in this paragraph which result in the discharge of dredged or fill material into navigable waters may be subject to the permit requirements of section 404 of the Act.]

- (f) Any pollutants not required by or beneficial to the aquaculture crop shall not exceed applicable standards and limitations when entering the designated project area.

Subpart C [Reserved]

Subpart D - Criteria and Standards for Determining Fundamentally Different Factors Under Sections 301(b)(1)(A), 301(b)(2) (A) and (E) of the Act

§ 125.30 Purpose and scope.

- (a) This subpart establishes the criteria and standards to be used in determining whether effluent limitations alternative to those required by promulgated EPA effluent limitations guidelines under sections 301 and 304 of the Act (hereinafter referred to as "national limits") should be imposed on a discharger because factors relating to the discharger's facilities, equipment, processes or other factors related to the discharger are fundamentally different from the factors considered by EPA in development of the national limits. This subpart applies to all national limitations promulgated under sections 301 and 304 of the Act, except for the BPT limits contained in 40 CFR 423.12 (steam electric generating point source category).
- (b) In establishing national limits, EPA takes into account all the information it can collect, develop and solicit regarding the factors listed in sections 304(b) and 304(g) of the Act. In some cases, however, data which could affect these national limits as they apply to a particular discharge may not be available or may not be considered during their development. As a result, it may be necessary on a case-by-case basis to adjust the national limits, and make them either more or less stringent as they apply to certain dischargers within an industrial category or subcategory. This will only be done if data specific to that discharger indicates it presents factors fundamentally different from those considered by EPA in developing the limit at issue. Any interested person believing that factors relating to a discharger's facilities, equipment, processes or other facilities related to the discharger are fundamentally different from the factors considered during development of the national limits may request a fundamentally different factors variance under § 122.21(l)(1). In addition, such a variance may be proposed by the Director in the draft permit.

(Secs. 301, 304, 306, 307, 308, and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 as amended by the Clean Water Act of 1977, Pub. L. 95-217 (the "Act"); Clean Water Act, Safe Drinking Water Act, Clean Air Act, Resource Conservation and Recovery Act: 42 U.S.C. 6905, 6912, 6925, 6927, 6974)

[44 FR 32948, June 7, 1979, as amended at 45 FR 33512, May 19, 1980; 46 FR 9460, Jan. 28, 1981; 47 FR 52309, Nov. 19, 1982; 48 FR 14293, Apr. 1, 1983]

§ 125.31 Criteria.

- (a) A request for the establishment of effluent limitations under this subpart (fundamentally different factors variance) shall be approved only if:
- (1) There is an applicable national limit which is applied in the permit and specifically controls the pollutant for which alternative effluent limitations or standards have been requested; and
 - (2) Factors relating to the discharge controlled by the permit are fundamentally different from those considered by EPA in establishing the national limits; and
 - (3) The request for alternative effluent limitations or standards is made in accordance with the procedural requirements of part 124.
- (b) A request for the establishment of effluent limitations less stringent than those required by national limits guidelines shall be approved only if:
- (1) The alternative effluent limitation or standard requested is no less stringent than justified by the fundamental difference; and
 - (2) The alternative effluent limitation or standard will ensure compliance with sections 208(e) and 301(b)(1)(C) of the Act; and
 - (3) Compliance with the national limits (either by using the technologies upon which the national limits are based or by other control alternatives) would result in:

- (i) A removal cost wholly out of proportion to the removal cost considered during development of the national limits; or
 - (ii) A non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the national limits.
- (c) A request for alternative limits more stringent than required by national limits shall be approved only if:
- (1) The alternative effluent limitation or standard requested is no more stringent than justified by the fundamental difference; and
 - (2) Compliance with the alternative effluent limitation or standard would not result in:
 - (i) A removal cost wholly out of proportion to the removal cost considered during development of the national limits; or
 - (ii) A non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the national limits.
- (d) Factors which may be considered fundamentally different are:
- (1) The nature or quality of pollutants contained in the raw waste load of the applicant's process wastewater;

[Comment: (1) In determining whether factors concerning the discharger are fundamentally different, EPA will consider, where relevant, the applicable development document for the national limits, associated technical and economic data collected for use in developing each respective national limit, records of legal proceedings, and written and printed documentation including records of communication, etc., relevant to the development of respective national limits which are kept on public file by EPA.

(2) Waste stream(s) associated with a discharger's process wastewater which were not considered in the development of the national limits will not ordinarily be treated as fundamentally different under paragraph (a) of this section. Instead, national limits should be applied to the other streams, and the unique stream(s) should be subject to limitations based on section 402(a)(1) of the Act. See § 125.2(c)(2).]
 - (2) The volume of the discharger's process wastewater and effluent discharged;
 - (3) Non-water quality environmental impact of control and treatment of the discharger's raw waste load;
 - (4) Energy requirements of the application of control and treatment technology;
 - (5) Age, size, land availability, and configuration as they relate to the discharger's equipment or facilities; processes employed; process changes; and engineering aspects of the application of control technology;
 - (6) Cost of compliance with required control technology.
- (e) A variance request or portion of such a request under this section shall not be granted on any of the following grounds:
- (1) The infeasibility of installing the required waste treatment equipment within the time the Act allows.

[Comment: Under this section a variance request may be approved if it is based on factors which relate to the discharger's ability ultimately to achieve national limits but not if it is based on factors which merely affect the discharger's ability to meet the statutory deadlines of sections 301 and 307 of the Act such as labor difficulties, construction schedules, or unavailability of equipment.]
 - (2) The assertion that the national limits cannot be achieved with the appropriate waste treatment facilities installed, if such assertion is not based on factor(s) listed in paragraph (d) of this section;

[Comment: Review of the Administrator's action in promulgating national limits is available only through the judicial review procedures set forth in section 509(b) of the Act.]
 - (3) The discharger's ability to pay for the required waste treatment; or
 - (4) The impact of a discharge on local receiving water quality.

- (f) Nothing in this section shall be construed to impair the right of any State or locality under section 510 of the Act to impose more stringent limitations than those required by Federal law.

§ 125.32 Method of application.

- (a) A written request for a variance under this subpart D shall be submitted in duplicate to the Director in accordance with §§ 122.21(m)(1) and 124.3 of this chapter.
- (b) The burden is on the person requesting the variance to explain that:
- (1) Factor(s) listed in § 125.31(b) regarding the discharger's facility are fundamentally different from the factors EPA considered in establishing the national limits. The requester should refer to all relevant material and information, such as the published guideline regulations development document, all associated technical and economic data collected for use in developing each national limit, all records of legal proceedings, and all written and printed documentation including records of communication, etc., relevant to the regulations which are kept on public file by the EPA;
 - (2) The alternative limitations requested are justified by the fundamental difference alleged in paragraph (b)(1) of this section; and
 - (3) The appropriate requirements of § 125.31 have been met.

[44 FR 32948, June 7, 1979, as amended at 65 FR 30913, May 15, 2000]

Subpart E - Criteria for Granting Economic Variances From Best Available Technology Economically Achievable Under Section 301(c) of the Act [Reserved]

Subpart F - Criteria for Granting Water Quality Related Variances Under Section 301(g) of the Act [Reserved]

Subpart G - Criteria for Modifying the Secondary Treatment Requirements Under Section 301(h) of the Clean Water Act

Authority: Clean Water Act, as amended by the Clean Water Act of 1977, 33 U.S.C. 1251 *et seq.*, unless otherwise noted.

Source: 59 FR 40658, Aug. 9, 1994, unless otherwise noted.

§ 125.56 Scope and purpose.

This subpart establishes the criteria to be applied by EPA in acting on section 301(h) requests for modifications to the secondary treatment requirements. It also establishes special permit conditions which must be included in any permit incorporating a section 301(h) modification of the secondary treatment requirements ("section 301(h) modified permit").

§ 125.57 Law governing issuance of a section 301(h) modified permit.

- (a) Section 301(h) of the Clean Water Act provides that:

Administrator, with the concurrence of the State, may issue a permit under section 402 which modifies the requirements of paragraph (b)(1)(B) of this section with respect to the discharge of any pollutant from a publicly owned treatment works into marine waters, if the applicant demonstrates to the satisfaction of the Administrator that -

- (1) There is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 304(a)(6) of this Act;
- (2) The discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on the water;

- (3) The applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;
- (4) Such modified requirements will not result in any additional requirements on any other point or nonpoint source;
- (5) All applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;
- (6) In the case of any treatment works serving a population of 50,000 or more, with respect to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;
- (7) To the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;
- (8) There will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;
- (9) The applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 304(a)(1) of this Act after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged.

For the purposes of this section, the phrase "the discharge of any pollutant into marine waters" refers to a discharge into deep waters of the territorial sea or the waters of the contiguous zone, or into saline estuarine waters where there is strong tidal movement and other hydrological and geological characteristics which the Administrator determines necessary to allow compliance with paragraph (2) of this section, and section 101(a)(2) of this Act. For the purposes of paragraph (9), "primary or equivalent treatment" means treatment by screening, sedimentation, and skimming adequate to remove at least 30 percent of the biological oxygen demanding material and of the suspended solids in the treatment works influent, and disinfection, where appropriate. A municipality which applies secondary treatment shall be eligible to receive a permit pursuant to this subsection which modifies the requirements of paragraph (b)(1)(B) of this section with respect to the discharge of any pollutant from any treatment works owned by such municipality into marine waters. No permit issued under this subsection shall authorize the discharge of sewage sludge into marine waters. In order for a permit to be issued under this subsection for the discharge of a pollutant into marine waters, such marine waters must exhibit characteristics assuring that water providing dilution does not contain significant amounts of previously discharged effluent from such treatment works. No permit issued under this subsection shall authorize the discharge of any pollutant into saline estuarine waters which at the time of application do not support a balanced indigenous population of shellfish, fish, and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish, fish, and wildlife or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a causal relationship between such characteristics and the applicant's current or proposed discharge. Notwithstanding any other provisions of this subsection, no permit may be issued under this subsection for discharge of a pollutant into the New York Bight Apex consisting of the ocean waters of the Atlantic Ocean westward of 73 degrees 30 minutes west longitude and northward of 40 degrees 10 minutes north latitude.

- (b) Section 301(j)(1) of the Clean Water Act provides that:

Any application filed under this section for a modification of the provisions of -

(A) subsection (b)(1)(B) under subsection (h) of this section shall be filed not later than the 365th day which begins after the date of enactment of the Municipal Wastewater Treatment Construction Grant Amendments of 1981, except that a publicly owned treatment works which prior to December 31, 1982, had a contractual arrangement to use a portion of the capacity of an ocean outfall operated by another publicly owned treatment works which has applied for or received modification under subsection (h) may apply for a modification of subsection (h) in its own right not later than 30 days after the date of the enactment of the Water Quality Act of 1987.

- (c) Section 22(e) of the Municipal Wastewater Treatment Construction Grant Amendments of 1981, Public Law 97-117, provides that:

The amendments made by this section shall take effect on the date of enactment of this Act except that no applicant, other than the city of Avalon, California, who applies after the date of enactment of this Act for a permit pursuant to subsection (h) of section 301 of the Federal Water Pollution Control Act which modifies the requirements of subsection (b)(1)(B) of section 301 of such Act shall receive such permit during the one-year period which begins on the date of enactment of this Act.

- (d) Section 303(b)(2) of the Water Quality Act, Public Law 100-4, provides that:

Section 301(h)(3) shall only apply to modifications and renewals of modifications which are tentatively or finally approved after the date of the enactment of this Act.

- (e) Section 303(g) of the Water Quality Act provides that:

The amendments made to sections 301(h) and (h)(2), as well as provisions of (h)(6) and (h)(9), shall not apply to an application for a permit under section 301(h) of the Federal Water Pollution Control Act which has been tentatively or finally approved by the Administrator before the date of the enactment of this Act; except that such amendments shall apply to all renewals of such permits after such date of enactment.

§ 125.58 Definitions.

For the purpose of this subpart:

- (a) **Administrator** means the EPA Administrator or a person designated by the EPA Administrator.
- (b) **Altered discharge** means any discharge other than a current discharge or improved discharge, as defined in this regulation.
- (c) **Applicant** means an applicant for a new or renewed section 301(h) modified permit. Large applicants have populations contributing to their POTWs equal to or more than 50,000 people or average dry weather flows of 5.0 million gallons per day (mgd) or more; small applicants have contributing populations of less than 50,000 people and average dry weather flows of less than 5.0 mgd. For the purposes of this definition the contributing population and flows shall be based on projections for the end of the five-year permit term. Average dry weather flows shall be the average daily total discharge flows for the maximum month of the dry weather season.
- (d) **Application** means a final application previously submitted in accordance with the June 15, 1979, section 301(h) regulations (44 FR 34784); an application submitted between December 29, 1981, and December 29, 1982; or a section 301(h) renewal application submitted in accordance with these regulations. It does not include a preliminary application submitted in accordance with the June 15, 1979, section 301(h) regulations.
- (e) **Application questionnaire** means EPA's "Applicant Questionnaire for Modification of Secondary Treatment Requirements," published as an appendix to this subpart.
- (f) **Balanced indigenous population** means an ecological community which:
- (1) Exhibits characteristics similar to those of nearby, healthy communities existing under comparable but unpolluted environmental conditions; or
 - (2) May reasonably be expected to become re-established in the polluted water body segment from adjacent waters if sources of pollution were removed.
- (g) **Categorical pretreatment standard** means a standard promulgated by EPA under 40 CFR Chapter I, Subchapter N.
- (h) **Current discharge** means the volume, composition, and location of an applicant's discharge at the time of permit application.
- (i) **Improved discharge** means the volume, composition, and location of an applicant's discharge following:
- (1) Construction of planned outfall improvements, including, without limitation, outfall relocation, outfall repair, or diffuser modification; or
 - (2) Construction of planned treatment system improvements to treatment levels or discharge characteristics; or

- (3) Implementation of a planned program to improve operation and maintenance of an existing treatment system or to eliminate or control the introduction of pollutants into the applicant's treatment works.
- (j) **Industrial discharger or industrial source** means any source of nondomestic pollutants regulated under section 307(b) or (c) of the Clean Water Act which discharges into a POTW.
- (k) **Modified discharge** means the volume, composition, and location of the discharge proposed by the applicant for which a modification under section 301(h) of the Act is requested. A modified discharge may be a current discharge, improved discharge, or altered discharge.
- (l) **New York Bight Apex** means the ocean waters of the Atlantic Ocean westward of 73 degrees 30 minutes west longitude and northward of 40 degrees 10 minutes north latitude.
- (m) **Nonindustrial source** means any source of pollutants which is not an industrial source.
- (n) **Ocean waters** means those coastal waters landward of the baseline of the territorial seas, the deep waters of the territorial seas, or the waters of the contiguous zone. The term "ocean waters" excludes saline estuarine waters.
- (o) **Permittee** means an NPDES permittee with an effective section 301(h) modified permit.
- (p) **Pesticides** means demeton, guthion, malathion, mirex, methoxychlor, and parathion.
- (q) **Pretreatment** means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes, or by other means, except as prohibited by 40 CFR part 403.
- (r) **Primary or equivalent treatment** for the purposes of this subpart means treatment by screening, sedimentation, and skimming adequate to remove at least 30 percent of the biochemical oxygen demanding material and of the suspended solids in the treatment works influent, and disinfection, where appropriate.
- (s) **Public water supplies** means water distributed from a public water system.
- (t) **Public water system** means a system for the provision to the public of piped water for human consumption, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals. This term includes:
- (1) Any collection, treatment, storage, and distribution facilities under the control of the operator of the system and used primarily in connection with the system, and
 - (2) Any collection or pretreatment storage facilities not under the control of the operator of the system which are used primarily in connection with the system.
- (u) **Publicly owned treatment works or POTW** means a treatment works, as defined in section 212(2) of the Act, which is owned by a State, municipality, or intermunicipal or interstate agency.
- (v) **Saline estuarine waters** means those semi-enclosed coastal waters which have a free connection to the territorial sea, undergo net seaward exchange with ocean waters, and have salinities comparable to those of the ocean. Generally, these waters are near the mouth of estuaries and have cross-sectional annual mean salinities greater than twenty-five (25) parts per thousand.
- (w) **Secondary removal equivalency** means that the amount of a toxic pollutant removed by the combination of the applicant's own treatment of its influent and pretreatment by its industrial users is equal to or greater than the amount of the toxic pollutant that would be removed if the applicant were to apply secondary treatment to its discharge where the discharge has not undergone pretreatment by the applicant's industrial users.
- (x) **Secondary treatment** means the term as defined in 40 CFR part 133.
- (y) **Shellfish, fish, and wildlife** means any biological population or community that might be adversely affected by the applicant's modified discharge.
- (z) **Stressed waters** means those ocean waters for which an applicant can demonstrate to the satisfaction of the Administrator, that the absence of a balanced indigenous population is caused solely by human perturbations other than the applicant's modified discharge.
- (aa) **Toxic pollutants** means those substances listed in 40 CFR 401.15.
- (bb) **Water quality criteria** means scientific data and guidance developed and periodically updated by EPA under section 304(a)(1) of the Clean Water Act, which are applicable to marine waters.

- (cc) **Water quality standards** means applicable water quality standards which have been approved, left in effect, or promulgated under section 303 of the Clean Water Act.
- (dd) **Zone of initial dilution (ZID)** means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, provided that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards.

§ 125.59 General.

- (a) **Basis for application.** An application under this subpart shall be based on a current, improved, or altered discharge into ocean waters or saline estuarine waters.
- (b) **Prohibitions.** No section 301(h) modified permit shall be issued:
 - (1) Where such issuance would not assure compliance with all applicable requirements of this subpart and part 122;
 - (2) For the discharge of sewage sludge;
 - (3) Where such issuance would conflict with applicable provisions of State, local, or other Federal laws or Executive Orders. This includes compliance with the Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1451 *et seq.*; the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.*; and Title III of the Marine Protection, Research and Sanctuaries Act, as amended, 16 U.S.C. 1431 *et seq.*;
 - (4) Where the discharge of any pollutant enters into saline estuarine waters which at the time of application do not support a balanced indigenous population of shellfish, fish, and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish, fish, and wildlife or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a causal relationship between such characteristics and the applicant's current or proposed discharge; or
 - (5) Where the discharge of any pollutant is into the New York Bight Apex.
- (c) **Applications.** Each applicant for a modified permit under this subpart shall submit an application to EPA signed in compliance with 40 CFR part 122, subpart B, which shall contain:
 - (1) A signed, completed NPDES Application Standard form A, parts I, II, III;
 - (2) A completed Application Questionnaire;
 - (3) The certification in accordance with 40 CFR 122.22(d);
 - (4) In addition to the requirements of § 125.59(c) (1) through (3), applicants for permit renewal shall support continuation of the modification by supplying to EPA the results of studies and monitoring performed in accordance with § 125.63 during the life of the permit. Upon a demonstration meeting the statutory criteria and requirements of this subpart, the permit may be renewed under the applicable procedures of 40 CFR part 124.
- (d) **Revisions to applications.**
 - (1) POTWs which submitted applications in accordance with the June 15, 1979, regulations (44 FR 34784) may revise their applications one time following a tentative decision to propose changes to treatment levels and/or outfall and diffuser location and design in accordance with § 125.59(f)(2)(i); and
 - (2) Other applicants may revise their applications one time following a tentative decision to propose changes to treatment levels and/or outfall and diffuser location and design in accordance with § 125.59(f)(2)(i). Revisions by such applicants which propose downgrading treatment levels and/or outfall and diffuser location and design must be justified on the basis of substantial changes in circumstances beyond the applicant's control since the time of application submission.
 - (3) Applicants authorized or requested to submit additional information under § 125.59(g) may submit a revised application in accordance with § 125.59(f)(2)(ii) where such additional information supports changes in proposed treatment levels and/or outfall location and diffuser design. The opportunity for such revision shall be in addition to the one-time revision allowed under § 125.59(d) (1) and (2).
 - (4) POTWs which revise their applications must:
 - (i) Modify their NPDES form and Application Questionnaire as needed to ensure that the information filed with their application is correct and complete;

- (ii) Provide additional analysis and data as needed to demonstrate compliance with this subpart;
 - (iii) Obtain new State determinations under §§ 125.61(b)(2) and 125.64(b); and
 - (iv) Provide the certification described in paragraph (c)(3) of this section.
- (5) Applications for permit renewal may not be revised.
- (e) **Submittal of additional information to demonstrate compliance with §§ 125.60 and 125.65.**
- (1) On or before the deadline established in paragraph (f)(3) of this section, applicants shall submit a letter of intent to demonstrate compliance with §§ 125.60 and 125.65. The letter of intent is subject to approval by the Administrator based on the requirements of this paragraph and paragraph (f)(3) of this section. The letter of intent shall consist of the following:
 - (i) For compliance with § 125.60:
 - (A) A description of the proposed treatment system which upgrades treatment to satisfy the requirements of § 125.60.
 - (B) A project plan, including a schedule for data collection and for achieving compliance with § 125.60. The project plan shall include dates for design and construction of necessary facilities, submittal of influent/effluent data, and submittal of any other information necessary to demonstrate compliance with § 125.60. The Administrator will review the project plan and may require revisions prior to authorizing submission of the additional information.
 - (ii) For compliance with § 125.65:
 - (A) A determination of what approach will be used to achieve compliance with § 125.65.
 - (B) A project plan for achieving compliance. The project plan shall include any necessary data collection activities, submittal of additional information, and/or development of appropriate pretreatment limits to demonstrate compliance with § 125.65. The Administrator will review the project plan and may require revisions prior to submission of the additional information.
 - (iii) POTWs which submit additional information must:
 - (A) Modify their NPDES form and Application Questionnaire as needed to ensure that the information filed with their application is correct and complete;
 - (B) Obtain new State determinations under §§ 125.61(b)(2) and 125.64(b); and
 - (C) Provide the certification described in paragraph (c)(3) of this section.
 - (2) The information required under this paragraph must be submitted in accordance with the schedules in § 125.59(f)(3)(ii). If the applicant does not meet these schedules for compliance, EPA may deny the application on that basis.
- (f) **Deadlines and distribution -**
- (1) **Applications.**
 - (i) The application for an original 301(h) permit for POTWs which directly discharges effluent into saline waters shall be submitted to the appropriate EPA Regional Administrator no later than December 29, 1982.
 - (ii) The application for renewal of a 301(h) modified permit shall be submitted no less than 180 days prior to the expiration of the existing permit, unless permission for a later date has been granted by the Administrator. (The Administrator shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
 - (iii) A copy of the application shall be provided to the State and interstate agency(s) authorized to provide certification/concurrence under §§ 124.53 through 124.55 on or before the date the application is submitted to EPA.
 - (2) **Revisions to Applications.**
 - (i) Applicants desiring to revise their applications under § 125.59 (d)(1) or (d)(2) must:
 - (A) Submit to the appropriate Regional Administrator a letter of intent to revise their application either within 45 days of the date of EPA's tentative decision on their original application or within 45 days of November 26, 1982, whichever is later. Following receipt by EPA of a letter of intent, further EPA proceedings on the tentative decision under 40 CFR part 124 will be stayed.

- (B) Submit the revised application as described for new applications in § 125.59(f)(1) either within one year of the date of EPA's tentative decision on their original application or within one year of November 26, 1982, if a tentative decision has already been made, whichever is later.
- (ii) Applicants desiring to revise their applications under § 125.59(d)(3) must submit the revised application as described for new applications in § 125.59(f)(1) concurrent with submission of the additional information under § 125.59(g).
- (3) Deadline for additional information to demonstrate compliance with §§ 125.60 and 125.65.
- (i) A letter of intent required under § 125.59(e)(1) must be submitted by the following dates: for permittees with 301(h) modifications or for applicants to which a tentative or final decision has been issued, November 7, 1994; for all others, within 90 days after the Administrator issues a tentative decision on an application. Following receipt by EPA of a letter of intent containing the information required in § 125.59(e)(1), further EPA proceedings on the tentative decision under 40 CFR part 124 will be stayed.
- (ii) The project plan submitted under § 125.59(e)(1) shall ensure that the applicant meets all the requirements of §§ 125.60 and 125.65 by the following deadlines:
- (A) By August 9, 1996 for applicants that are not grandfathered under § 125.59(j).
- (B) At the time of permit renewal or by August 9, 1996, whichever is later, for applicants that are grandfathered under § 125.59(j).
- (4) **State determination deadline.** State determinations, as required by §§ 125.61(b)(2) and 125.64(b) shall be filed by the applicant with the appropriate Regional Administrator no later than 90 days after submission of the revision to the application or additional information to EPA. Extensions to this deadline may be provided by EPA upon request. However, EPA will not begin review of the revision to the application or additional information until a favorable State determination is received by EPA. Failure to provide the State determination within the timeframe required by this paragraph (f)(4) is a basis for denial of the application.
- (g)
- (1) The Administrator may authorize or request an applicant to submit additional information by a specified date not to exceed one year from the date of authorization or request.
- (2) Applicants seeking authorization to submit additional information on current/modified discharge characteristics, water quality, biological conditions or oceanographic characteristics must:
- (i) Demonstrate that they made a diligent effort to provide such information with their application and were unable to do so, and
- (ii) Submit a plan of study, including a schedule, for data collection and submittal of the additional information. EPA will review the plan of study and may require revisions prior to authorizing submission of the additional information.
- (h) **Tentative decisions on section 301(h) modifications.** The Administrator shall grant a tentative approval or a tentative denial of a section 301(h) modified permit application. To qualify for a tentative approval, the applicant shall demonstrate to the satisfaction of the Administrator that it is using good faith means to come into compliance with all the requirements of this subpart and that it will meet all such requirements based on a schedule approved by the Administrator. For compliance with §§ 125.60 and 125.65, such schedule shall be in accordance with § 125.59(f)(3)(ii).
- (i) **Decisions on section 301(h) modifications.**
- (1) The decision to grant or deny a section 301(h) modification shall be made by the Administrator and shall be based on the applicant's demonstration that it has met all the requirements of §§ 125.59 through 125.68.
- (2) No section 301(h) modified permit shall be issued until the appropriate State certification/concurrence is granted or waived pursuant to § 124.54 or if the State denies certification/ concurrence pursuant to § 124.54.
- (3) In the case of a modification issued to an applicant in a State administering an approved permit program under 40 CFR part 123, the State Director may:
- (i) Revoke an existing permit as of the effective date of the EPA issued section 301(h) modified permit; and
- (ii) Cosign the section 301(h) modified permit if the Director has indicated an intent to do so in the written concurrence.
- (4) Any section 301(h) modified permit shall:

- (i) Be issued in accordance with the procedures set forth in 40 CFR part 124, except that, because section 301(h) permits may be issued only by EPA, the terms "Administrator or a person designated by the Administrator" shall be substituted for the term "Director" as appropriate; and
 - (ii) Contain all applicable terms and conditions set forth in 40 CFR part 122 and § 125.68.
- (5) Appeals of section 301(h) determinations shall be governed by the procedures in 40 CFR part 124.
- (j) **Grandfathering provision.** Applicants that received tentative or final approval for a section 301(h) modified permit prior to February 4, 1987, are not subject to § 125.60, the water quality criteria provisions of § 125.62(a)(1), or § 125.65 until the time of permit renewal. In addition, if permit renewal will occur prior to August 9, 1996, applicants may have additional time to come into compliance with §§ 125.60 and 125.65, as determined appropriate by EPA on a case-by-case basis. Such additional time, however, shall not extend beyond August 9, 1996. This paragraph does not apply to any application that was initially tentatively approved, but as to which EPA withdrew its tentative approval or issued a tentative denial prior to February 4, 1987.

§ 125.60 Primary or equivalent treatment requirements.

- (a) The applicant shall demonstrate that, at the time its modification becomes effective, it will be discharging effluent that has received at least primary or equivalent treatment.
- (b) The applicant shall perform monitoring to ensure, based on the monthly average results of the monitoring, that the effluent it discharges has received primary or equivalent treatment.
- (c)
 - (1) An applicant may request that the demonstration of compliance with the requirement under paragraph (b) of this section to provide 30 percent removal of BOD be allowed on an averaging basis different from monthly (e.g., quarterly), subject to the demonstrations provided in paragraphs (c)(1)(i), (ii) and (iii) of this section. The Administrator may approve such requests if the applicant demonstrates to the Administrator's satisfaction that:
 - (i) The applicant's POTW is adequately designed and well operated;
 - (ii) The applicant will be able to meet all requirements under section 301(h) of the CWA and these subpart G regulations with the averaging basis selected; and
 - (iii) The applicant cannot achieve 30 percent removal on a monthly average basis because of circumstances beyond the applicant's control. Circumstances beyond the applicant's control may include seasonally dilute influent BOD concentrations due to relatively high (although nonexcessive) inflow and infiltration; relatively high soluble to insoluble BOD ratios on a fluctuating basis; or cold climates resulting in cold influent. Circumstances beyond the applicant's control shall not include less concentrated wastewater due to excessive inflow and infiltration (I&I). The determination of whether the less concentrated wastewater is the result of excessive I&I will be based on the definition of excessive I&I in 40 CFR 35.2005(b)(16) plus the additional criterion that inflow is nonexcessive if the total flow to the POTW (i.e., wastewater plus inflow plus infiltration) is less than 275 gallons per capita per day.
 - (2) In no event shall averaging on a less frequent basis than annually be allowed.

[59 FR 40658, Aug. 9, 1994, as amended at 61 FR 45833, Aug. 29, 1996]

§ 125.61 Existence of and compliance with applicable water quality standards.

- (a) There must exist a water quality standard or standards applicable to the pollutant(s) for which a section 301(h) modified permit is requested, including:
 - (1) Water quality standards for biochemical oxygen demand or dissolved oxygen;
 - (2) Water quality standards for suspended solids, turbidity, light transmission, light scattering, or maintenance of the euphotic zone; and
 - (3) Water quality standards for pH.
- (b) The applicant must:
 - (1) Demonstrate that the modified discharge will comply with the above water quality standard(s); and

- (2) Provide a determination signed by the State or interstate agency(s) authorized to provide certification under §§ 124.53 and 124.54 that the proposed modified discharge will comply with applicable provisions of State law including water quality standards. This determination shall include a discussion of the basis for the conclusion reached.

§ 125.62 Attainment or maintenance of water quality which assures protection of public water supplies; assures the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife; and allows recreational activities.

(a) *Physical characteristics of discharge.*

- (1) At the time the 301(h) modification becomes effective, the applicant's outfall and diffuser must be located and designed to provide adequate initial dilution, dispersion, and transport of wastewater such that the discharge does not exceed at and beyond the zone of initial dilution:
 - (i) All applicable water quality standards; and
 - (ii) All applicable EPA water quality criteria for pollutants for which there is no applicable EPA-approved water quality standard that directly corresponds to the EPA water quality criterion for the pollutant.
 - (iii) For purposes of paragraph (a)(1)(ii) of this section, a State water quality standard "directly corresponds" to an EPA water quality criterion only if:
 - (A) The State water quality standard addresses the same pollutant as the EPA water quality criterion and
 - (B) The State water quality standard specifies a numeric criterion for that pollutant or State objective methodology for deriving such a numeric criterion.
 - (iv) The evaluation of compliance with paragraphs (a)(1) (i) and (ii) of this section shall be based upon conditions reflecting periods of maximum stratification and during other periods when discharge characteristics, water quality, biological seasons, or oceanographic conditions indicate more critical situations may exist.
- (2) The evaluation under paragraph (a)(1)(ii) of this section as to compliance with applicable section 304(a)(1) water quality criteria shall be based on the following:
 - (i) **For aquatic life criteria:** The pollutant concentrations that must not be exceeded are the numeric ambient values, if any, specified in the EPA section 304(a)(1) water quality criteria documents as the concentrations at which acute and chronic toxicity to aquatic life occurs or that are otherwise identified as the criteria to protect aquatic life.
 - (ii) **For human health criteria for carcinogens:**
 - (A) For a known or suspected carcinogen, the Administrator shall determine the pollutant concentration that shall not be exceeded. To make this determination, the Administrator shall first determine a level of risk associated with the pollutant that is acceptable for purposes of this section. The Administrator shall then use the information in the section 304(a)(1) water quality criterion document, supplemented by all other relevant information, to determine the specific pollutant concentration that corresponds to the identified risk level.
 - (B) For purposes of paragraph (a)(2)(ii)(A) of this section, an acceptable risk level will be a single level that has been consistently used, as determined by the Administrator, as the basis of the State's EPA-approved water quality standards for carcinogenic pollutants. Alternatively, the Administrator may consider a State's recommendation to use a risk level that has been otherwise adopted or formally proposed by the State. The State recommendation must demonstrate, to the satisfaction of the Administrator, that the recommended level is sufficiently protective of human health in light of the exposure and uncertainty factors associated with the estimate of the actual risk posed by the applicant's discharge. The State must include with its demonstration a showing that the risk level selected is based on the best information available and that the State has held a public hearing to review the selection of the risk level, in accordance with provisions of State law and public participation requirements of 40 CFR part 25. If the Administrator neither determines that there is a consistently used single risk level nor accepts a risk level recommended by the State, then the Administrator shall otherwise determine an acceptable risk level based on all relevant information.
 - (iii) **For human health criteria for noncarcinogens:** For noncarcinogenic pollutants, the pollutant concentrations that must not be exceeded are the numeric ambient values, if any, specified in the EPA section 304(a)(1) water quality criteria documents as protective against the potential toxicity of the contaminant through ingestion of

contaminated aquatic organisms.

- (3) The requirements of paragraphs (a)(1) and (a)(2) of this section apply in addition to, and do not waive or substitute for, the requirements of § 125.61.

(b) **Impact of discharge on public water supplies.**

- (1) The applicant's modified discharge must allow for the attainment or maintenance of water quality which assures protection of public water supplies.
- (2) The applicant's modified discharge must not:
 - (i) Prevent a planned or existing public water supply from being used, or from continuing to be used, as a public water supply; or
 - (ii) Have the effect of requiring treatment over and above that which would be necessary in the absence of such discharge in order to comply with local and EPA drinking water standards.

(c) **Biological impact of discharge.**

- (1) The applicant's modified discharge must allow for the attainment or maintenance of water quality which assures protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.
- (2) A balanced indigenous population of shellfish, fish, and wildlife must exist:
 - (i) Immediately beyond the zone of initial dilution of the applicant's modified discharge; and
 - (ii) In all other areas beyond the zone of initial dilution where marine life is actually or potentially affected by the applicant's modified discharge.
- (3) Conditions within the zone of initial dilution must not contribute to extreme adverse biological impacts, including, but not limited to, the destruction of distinctive habitats of limited distribution, the presence of disease epicenter, or the stimulation of phytoplankton blooms which have adverse effects beyond the zone of initial dilution.
- (4) In addition, for modified discharges into saline estuarine water:
 - (i) Benthic populations within the zone of initial dilution must not differ substantially from the balanced indigenous populations which exist immediately beyond the boundary of the zone of initial dilution;
 - (ii) The discharge must not interfere with estuarine migratory pathways within the zone of initial dilution; and
 - (iii) The discharge must not result in the accumulation of toxic pollutants or pesticides at levels which exert adverse effects on the biota within the zone of initial dilution.

(d) **Impact of discharge on recreational activities.**

- (1) The applicant's modified discharge must allow for the attainment or maintenance of water quality which allows for recreational activities beyond the zone of initial dilution, including, without limitation, swimming, diving, boating, fishing, and picnicking, and sports activities along shorelines and beaches.
- (2) There must be no Federal, State, or local restrictions on recreational activities within the vicinity of the applicant's modified outfall unless such restrictions are routinely imposed around sewage outfalls. This exception shall not apply where the restriction would be lifted or modified, in whole or in part, if the applicant were discharging a secondary treatment effluent.

(e) **Additional requirements for applications based on improved or altered discharges.** An application for a section 301(h) modified permit on the basis of an improved or altered discharge must include:

- (1) A demonstration that such improvements or alterations have been thoroughly planned and studied and can be completed or implemented expeditiously;
- (2) Detailed analyses projecting changes in average and maximum monthly flow rates and composition of the applicant's discharge which are expected to result from proposed improvements or alterations;
- (3) The assessments required by paragraphs (a) through (d) of this section based on its current discharge; and
- (4) A detailed analysis of how the applicant's planned improvements or alterations will comply with the requirements of paragraphs (a) through (d) of this section.

- (f) **Stressed waters.** An applicant must demonstrate compliance with paragraphs (a) through (e) of this section not only on the basis of the applicant's own modified discharge, but also taking into account the applicant's modified discharge in combination with pollutants from other sources. However, if an applicant which discharges into ocean waters believes that its failure to meet the requirements of paragraphs (a) through (e) of this section is entirely attributable to conditions resulting from human perturbations other than its modified discharge (including, without limitation, other municipal or industrial discharges, nonpoint source runoff, and the applicant's previous discharges), the applicant need not demonstrate compliance with those requirements if it demonstrates, to the satisfaction of the Administrator, that its modified discharge does not or will not:
- (1) Contribute to, increase, or perpetuate such stressed conditions;
 - (2) Contribute to further degradation of the biota or water quality if the level of human perturbation from other sources increases; and
 - (3) Retard the recovery of the biota or water quality if the level of human perturbation from other sources decreases.

§ 125.63 Establishment of a monitoring program.

(a) **General requirements.**

- (1) The applicant must:
 - (i) Have a monitoring program that is:
 - (A) Designed to provide data to evaluate the impact of the modified discharge on the marine biota, demonstrate compliance with applicable water quality standards or water quality criteria, as applicable, and measure toxic substances in the discharge, and
 - (B) Limited to include only those scientific investigations necessary to study the effects of the proposed discharge;
 - (ii) Describe the sampling techniques, schedules and locations (including appropriate control sites), analytical techniques, quality control and verification procedures to be used in the monitoring program;
 - (iii) Demonstrate that it has the resources necessary to implement the program upon issuance of the modified permit and to carry it out for the life of the modified permit; and
 - (iv) Determine the frequency and extent of the monitoring program taking into consideration the applicant's rate of discharge, quantities of toxic pollutants discharged, and potentially significant impacts on receiving water quality, marine biota, and designated water uses.
- (2) The Administrator may require revision of the proposed monitoring program before issuing a modified permit and during the term of any modified permit.

(b) **Biological monitoring program.** The biological monitoring program for both small and large applicants shall provide data adequate to evaluate the impact of the modified discharge on the marine biota.

- (1) Biological monitoring shall include to the extent practicable:
 - (i) Periodic surveys of the biological communities and populations which are most likely affected by the discharge to enable comparisons with baseline conditions described in the application and verified by sampling at the control stations/reference sites during the periodic surveys;
 - (ii) Periodic determinations of the accumulation of toxic pollutants and pesticides in organisms and examination of adverse effects, such as disease, growth abnormalities, physiological stress, or death;
 - (iii) Sampling of sediments in areas of solids deposition in the vicinity of the ZID, in other areas of expected impact, and at appropriate reference sites to support the water quality and biological surveys and to measure the accumulation of toxic pollutants and pesticides; and
 - (iv) Where the discharge would affect commercial or recreational fisheries, periodic assessments of the conditions and productivity of fisheries.
- (2) Small applicants are not subject to the requirements of paragraph (b)(1) (ii) through (iv) of this section if they discharge at depths greater than 10 meters and can demonstrate through a suspended solids deposition analysis that there will be negligible seabed accumulation in the vicinity of the modified discharge.
- (3) For applicants seeking a section 301(h) modified permit based on:

- (i) A current discharge, biological monitoring shall be designed to demonstrate ongoing compliance with the requirements of § 125.62(c);
 - (ii) An improved discharge or altered discharge other than outfall relocation, biological monitoring shall provide baseline data on the current impact of the discharge and data which demonstrate, upon completion of improvements or alterations, that the requirements of § 125.62(c) are met; or
 - (iii) An improved or altered discharge involving outfall relocation, the biological monitoring shall:
 - (A) Include the current discharge site until such discharge ceases; and
 - (B) Provide baseline data at the relocation site to demonstrate the impact of the discharge and to provide the basis for demonstrating that requirements of § 125.62(c) will be met.
- (c) **Water quality monitoring program.** The water quality monitoring program shall to the extent practicable:
- (1) Provide adequate data for evaluating compliance with water quality standards or water quality criteria, as applicable under § 125.62(a)(1);
 - (2) Measure the presence of toxic pollutants which have been identified or reasonably may be expected to be present in the discharge.
- (d) **Effluent monitoring program.**
- (1) In addition to the requirements of 40 CFR part 122, to the extent practicable, monitoring of the POTW effluent shall provide quantitative and qualitative data which measure toxic substances and pesticides in the effluent and the effectiveness of the toxic control program.
 - (2) The permit shall require the collection of data on a frequency specified in the permit to provide adequate data for evaluating compliance with the percent removal efficiency requirements under § 125.60.

§ 125.64 Effect of the discharge on other point and nonpoint sources.

- (a) No modified discharge may result in any additional pollution control requirements on any other point or nonpoint source.
- (b) The applicant shall obtain a determination from the State or interstate agency(s) having authority to establish wasteload allocations indicating whether the applicant's discharge will result in an additional treatment pollution control, or other requirement on any other point or nonpoint sources. The State determination shall include a discussion of the basis for its conclusion.

§ 125.65 Urban area pretreatment program.

- (a) **Scope and applicability.**
 - (1) The requirements of this section apply to each POTW serving a population of 50,000 or more that has one or more toxic pollutants introduced into the POTW by one or more industrial dischargers and that seeks a section 301(h) modification.
 - (2) The requirements of this section apply in addition to any applicable requirements of 40 CFR part 403, and do not waive or substitute for the part 403 requirements in any way.
- (b) **Toxic pollutant control.**
 - (1) As to each toxic pollutant introduced by an industrial discharger, each POTW subject to the requirements of this section shall demonstrate that it either:
 - (i) Has an applicable pretreatment requirement in effect in accordance with paragraph (c) of this section; or
 - (ii) Has in effect a program that achieves secondary removal equivalency in accordance with paragraph (d) of this section.
 - (2) Each applicant shall demonstrate that industrial sources introducing waste into the applicant's treatment works are in compliance with all applicable pretreatment requirements, including numerical standards set by local limits, and that it will enforce those requirements.
- (c) **Applicable pretreatment requirement.**

- (1) An applicable pretreatment requirement under paragraph (b)(1)(i) of this section with respect to a toxic pollutant shall consist of the following:
 - (i) As to a toxic pollutant introduced into the applicant's treatment works by an industrial discharger for which there is no applicable categorical pretreatment standard for the toxic pollutant, a local limit or limits on the toxic pollutant as necessary to satisfy the requirements of 40 CFR part 403; and
 - (ii) As to a toxic pollutant introduced into the applicant's treatment works by an industrial discharger that is subject to a categorical pretreatment standard for the toxic pollutant, the categorical standard and a local limit or limits as necessary to satisfy the requirements of 40 CFR part 403;
 - (iii) As to a toxic pollutant introduced into the applicant's treatment works by an industrial discharger for which there is no applicable categorical pretreatment standard for the toxic pollutant, and the 40 CFR part 403 analysis on the toxic pollutant shows that no local limit is necessary, the applicant shall demonstrate to EPA on an annual basis during the term of the permit through continued monitoring and appropriate technical review that a local limit is not necessary, and, where appropriate, require industrial management practices plans and other pollution prevention activities to reduce or control the discharge of each such pollutant by industrial dischargers to the POTW. If such monitoring and technical review of data indicate that a local limit is needed, the POTW shall establish and implement a local limit.
 - (2) Any local limits developed to meet the requirements of paragraphs (b)(1)(i) and (c)(1) of this section shall be:
 - (i) Consistent with all applicable requirements of 40 CFR part 403 and
 - (ii) Subject to approval by the Administrator as part of the 301(h) application review. The Administrator may require such local limits to be revised as necessary to meet the requirements of this section or 40 CFR part 403.
- (d) **Secondary removal equivalency.** An applicant shall demonstrate that it achieves secondary removal equivalency through the use of a secondary treatment pilot (demonstration) plant at the applicant's facility which provides an empirical determination of the amount of a toxic pollutant removed by the application of secondary treatment to the applicant's influent where the applicant's influent has not been pretreated. Alternatively, an applicant may make this determination using influent that has received industrial pretreatment, notwithstanding the definition of secondary removal equivalency in § 125.58(w). The NPDES permit shall include effluent limits based on the data from the secondary equivalency demonstration when those limits are more stringent than effluent limits based on State water quality standards or water quality criteria, if applicable, or are otherwise required to assure that all applicable environmental protection criteria are met. Once such effluent limits are established in the NPDES permit, the POTW may either establish local limits or perform additional treatment at the POTW or a combination of the two to achieve the permit limit.

§ 125.66 Toxics control program.

- (a) **Chemical analysis.**
 - (1) The applicant shall submit at the time of application a chemical analysis of its current discharge for all toxic pollutants and pesticides as defined in § 125.58(aa) and (p). The analysis shall be performed on two 24-hour composite samples (one dry weather and one wet weather). Applicants may supplement or substitute chemical analyses if composition of the supplemental or substitute samples typifies that which occurs during dry and wet weather conditions.
 - (2) Unless required by the State, this requirement shall not apply to any small section 301(h) applicant which certifies that there are no known or suspected sources of toxic pollutants or pesticides and documents the certification with an industrial user survey as described by 40 CFR 403.8(f)(2).
- (b) **Identification of sources.** The applicant shall submit at the time of application an analysis of the known or suspected sources of toxic pollutants or pesticides identified in § 125.66(a). The applicant shall to the extent practicable categorize the sources according to industrial and nonindustrial types.
- (c) **Industrial pretreatment requirements.**
 - (1) An applicant that has known or suspected industrial sources of toxic pollutants shall have an approved pretreatment program in accordance with 40 CFR part 403.
 - (2) This requirement shall not apply to any applicant which has no known or suspected industrial sources of toxic pollutants or pesticides and so certifies to the Administrator.

- (3) The pretreatment program submitted by the applicant under this section shall be subject to revision as required by the Administrator prior to issuing or renewing any section 301(h) modified permit and during the term of any such permit.
 - (4) Implementation of all existing pretreatment requirements and authorities must be maintained through the period of development of any additional pretreatment requirements that may be necessary to comply with the requirements of this subpart.
- (d) **Nonindustrial source control program.**
- (1) The applicant shall submit a proposed public education program designed to minimize the entrance of nonindustrial toxic pollutants and pesticides into its POTW(s) which shall be implemented no later than 18 months after issuance of a 301(h) modified permit.
 - (2) The applicant shall also develop and implement additional nonindustrial source control programs on the earliest possible schedule. This requirement shall not apply to a small applicant which certifies that there are no known or suspected water quality, sediment accumulation, or biological problems related to toxic pollutants or pesticides in its discharge.
 - (3) The applicant's nonindustrial source control programs under paragraph (d)(2) of this section shall include the following schedules which are to be implemented no later than 18 months after issuance of a section 301(h) modified permit:
 - (i) A schedule of activities for identifying nonindustrial sources of toxic pollutants and pesticides; and
 - (ii) A schedule for the development and implementation of control programs, to the extent practicable, for nonindustrial sources of toxic pollutants and pesticides.
 - (4) Each proposed nonindustrial source control program and/or schedule submitted by the applicant under this section shall be subject to revision as determined by the Administrator prior to issuing or renewing any section 301(h) modified permit and during the term of any such permit.

§ 125.67 Increase in effluent volume or amount of pollutants discharged.

- (a) No modified discharge may result in any new or substantially increased discharges of the pollutant to which the modification applies above the discharge specified in the section 301(h) modified permit.
- (b) Where pollutant discharges are attributable in part to combined sewer overflows, the applicant shall minimize existing overflows and prevent increases in the amount of pollutants discharged.
- (c) The applicant shall provide projections of effluent volume and mass loadings for any pollutants to which the modification applies in 5-year increments for the design life of its facility.

§ 125.68 Special conditions for section 301(h) modified permits.

Each section 301(h) modified permit issued shall contain, in addition to all applicable terms and conditions required by 40 CFR part 122, the following:

- (a) Effluent limitations and mass loadings which will assure compliance with the requirements of this subpart;
- (b) A schedule or schedules of compliance for:
 - (1) Pretreatment program development required by § 125.66(c);
 - (2) Nonindustrial toxics control program required by § 125.66(d); and
 - (3) Control of combined sewer overflows required by § 125.67.
- (c) Monitoring program requirements that include:
 - (1) Biomonitoring requirements of § 125.63(b);
 - (2) Water quality requirements of § 125.63(c);
 - (3) Effluent monitoring requirements of §§ 125.60(b), 125.62(c) and (d), and 125.63(d).
- (d) Reporting requirements that include the results of the monitoring programs required by paragraph (c) of this section at such frequency as prescribed in the approved monitoring program.

Appendix to Subpart G of Part 125 - Applicant Questionnaire for Modification of Secondary Treatment Requirements

OMB Control Number 2040-0088 Expires on 2/28/96 Public reporting burden for this collection of information is estimated to average 1,295 - 19,552 hours per response, for small and large applicants, respectively. The reporting burden includes time for reviewing instructions, gathering data, including monitoring and toxics control activities, and completing and reviewing the questionnaire. Send comments regarding the burden estimate or any other aspect of this collection, including suggestions for reducing the burden, to Chief, Information Policy Branch, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW. (2136), Washington, DC 20460 and Office of Management and Budget, Office of Information and Regulatory Affairs, Attn: Desk Officer for EPA, Washington, DC 20503.

I. Introduction

1. This questionnaire is to be submitted by both small and large applicants for modification of secondary treatment requirements under section 301(h) of the Clean Water Act (CWA). A small applicant is defined as a POTW that has a contributing population to its wastewater treatment facility of less than 50,000 and a projected average dry weather flow of less than 5.0 million gallons per day (mgd, 0.22 cubic meters/sec) [40 CFR 125.58(c)]. A large applicant is defined as a POTW that has a population contributing to its wastewater treatment facility of at least 50,000 or a projected average dry weather flow of its discharge of at least 5.0 million gallons per day (mgd, 0.22 cubic meters/sec) [40 CFR 125.58(c)]. The questionnaire is in two sections, a general information and basic requirements section (part II) and a technical evaluation section (part III). Satisfactory completion by small and large dischargers of the appropriate questions of this questionnaire is necessary to enable EPA to determine whether the applicant's modified discharge meets the criteria of section 301(h) and EPA regulations (40 CFR part 125, subpart G).

2. Most small applicants should be able to complete the questionnaire using available information. However, small POTWs with low initial dilution discharging into shallow waters or waters with poor dispersion and transport characteristics, discharging near distinctive and susceptible biological habitats, or discharging substantial quantities of toxics should anticipate the need to collect additional information and/or conduct additional analyses to demonstrate compliance with section 301(h) criteria. If there are questions in this regard, applicants should contact the appropriate EPA Regional Office for guidance.

3. Guidance for responding to this questionnaire is provided by the newly amended section 301(h) technical support document. Where available information is incomplete and the applicant needs to collect additional data during the period it is preparing the application or a letter of intent, EPA encourages the applicant to consult with EPA prior to data collection and submission. Such consultation, particularly if the applicant provides a project plan, will help ensure that the proper data are gathered in the most efficient manner.

4. The notation (L) means large applicants must respond to the question, and (S) means small applicants must respond.

II. General Information and Basic Data Requirements

A. Treatment System Description

1. (L,S) On which of the following are you basing your application: a current discharge, improved discharge, or altered discharge, as defined in 40 CFR 125.58? [40 CFR 125.59(a)]

2. (L,S) Description of the Treatment/Outfall System [40 CFR 125.62(a) and 125.62(e)]

a. Provide detailed descriptions and diagrams of the treatment system and outfall configuration which you propose to satisfy the requirements of section 301(h) and 40 CFR part 125, subpart G. What is the total discharge design flow upon which this application is based?

b. Provide a map showing the geographic location of proposed outfall(s) (i.e., discharge). What is the latitude and longitude of the proposed outfall(s)?

c. For a modification based on an improved or altered discharge, provide a description and diagram of your current treatment system and outfall configuration. Include the current outfall's latitude and longitude, if different from the proposed outfall.

3. (L,S) Primary or equivalent treatment requirements [40 CFR 125.60]

a. Provide data to demonstrate that your effluent meets at least primary or equivalent treatment requirements as defined in 40 CFR 125.58(r) [40 CFR 125.60]

b. If your effluent does not meet the primary or equivalent treatment requirements, when do you plan to meet them? Provide a detailed schedule, including design, construction, start-up and full operation, with your application. This requirement must be met by the effective date of the new section 301(h) modified permit.

4. (L,S) Effluent Limitations and Characteristics [40 CFR 125.61(b) and 125.62(e)(2)]

a. Identify the final effluent limitations for five-day biochemical oxygen demand (BOD₅), suspended solids, and pH upon which your application for a modification is based:

- BOD₅ ___ mg/L

- Suspended solids ___ mg/L

- pH ___ (range)

b. Provide data on the following effluent characteristics for your current discharge as well as for the modified discharge if different from the current discharge:

Flow (m³/sec):

- minimum

- average dry weather

- average wet weather

- maximum

- annual average

BOD₅ (mg/L) for the following plant flows:

- minimum

- average dry weather

- average wet weather

- maximum

- annual average

Suspended solids (mg/L) for the following plant flows:

- minimum

- average dry weather

- average wet weather

- maximum

- annual average

Toxic pollutants and pesticides (ug/L):

- list each toxic pollutant and pesticide
- list each 304(a)(1) criteria and toxic pollutant and pesticide

pH:

- minimum
- maximum

Dissolved oxygen (mg/L, prior to chlorination) for the following plant flows:

- minimum
- average dry weather
- average wet weather
- maximum
- annual average

Immediate dissolved oxygen demand (mg/L).

5. (L,S) Effluent Volume and Mass Emissions [40 CFR 125.62(e)(2) and 125.67]

- Provide detailed analyses showing projections of effluent volume (annual average, m³/sec) and mass loadings (mt/yr) of BOD₅ and suspended solids for the design life of your treatment facility in five-year increments. If the application is based upon an improved or altered discharge, the projections must be provided with and without the proposed improvements or alterations.
- Provide projections for the end of your five-year permit term for 1) the treatment facility contributing population and 2) the average daily total discharge flow for the maximum month of the dry weather season.

6. (L,S) Average Daily Industrial Flow (m³/sec). Provide or estimate the average daily industrial inflow to your treatment facility for the same time increments as in question II.A.5 above. [40 CFR 125.66]

7. (L,S) Combined Sewer Overflows [40 CFR 125.67(b)]

- Does (will) your treatment and collection system include combined sewer overflows?
- If yes, provide a description of your plan for minimizing combined sewer overflows to the receiving water.

8. (L,S) Outfall/Diffuser Design. Provide the following data for your current discharge as well as for the modified discharge, if different from the current discharge: [40 CFR 125.62(a)(1)]

- Diameter and length of the outfall(s) (meters)
- Diameter and length of the diffuser(s) (meters)
- Angle(s) of port orientation(s) from horizontal (degrees)
- Port diameter(s) (meters)
- Orifice contraction coefficient(s), if known
- Vertical distance from mean lower low water (or mean low water) surface and outfall port(s) centerline (meters)
- Number of ports

- Port spacing (meters)
- Design flow rate for each port, if multiple ports are used (m³/sec)

B. Receiving Water Description

1. (L,S) Are you applying for a modification based on a discharge to the ocean [40 CFR 125.58(n)] or to a saline estuary [40 CFR 125.58(v)]? [40 CFR 125.59(a)].
2. (L,S) Is your current discharge or modified discharge to stressed waters as defined in 40 CFR 125.58(z)? If yes, what are the pollution sources contributing to the stress? [40 CFR 125.59(b)(4) and 125.62(f)].
3. (L,S) Provide a description and data on the seasonal circulation patterns in the vicinity of your current and modified discharge(s). [40 CFR 125.62(a)].
4. (L) Oceanographic conditions in the vicinity of the current and proposed modified discharge(s). Provide data on the following: [40 CFR 125.62(a)].
 - Lowest ten percentile current speed (m/sec)
 - Predominant current speed (m/sec) and direction (true) during the four seasons
 - Period(s) of maximum stratification (months)
 - Period(s) of natural upwelling events (duration and frequency, months)
 - Density profiles during period(s) of maximum stratification
5. (L,S) Do the receiving waters for your discharge contain significant amounts of effluent previously discharged from the treatment works for which you are applying for a section 301(h) modified permit? [40 CFR 125.57(a)(9)]
6. Ambient water quality conditions during the period(s) of maximum stratification: at the zone of initial dilution (ZID) boundary, at other areas of potential impact, and at control stations. [40 CFR 125.62(a)]
 - a. (L) Provide profiles (with depth) on the following for the current discharge location and for the modified discharge location, if different from the current discharge:
 - BOD₅ (mg/L)
 - Dissolved oxygen (mg/L)
 - Suspended solids (mg/L)
 - pH
 - Temperature (°C)
 - Salinity (ppt)
 - Transparency (turbidity, percent light transmittance)
 - Other significant variables (e.g., nutrients, 304(a)(1) criteria and toxic pollutants and pesticides, fecal coliform bacteria)
 - b. (S) Provide available data on the following in the vicinity of the current discharge location and for the modified discharge location, if different from the current discharge: [40 CFR 125.61(b)(1)]
 - Dissolved oxygen (mg/L)

- Suspended solids (mg/L)
- pH
- Temperature (°C)
- Salinity (ppt)
- Transparency (turbidity, percent light transmittance)
- Other significant variables (e.g., nutrients, 304(a)(1) criteria and toxic pollutants and pesticides, fecal coliform bacteria)

c. (L,S) Are there other periods when receiving water quality conditions may be more critical than the period(s) of maximum stratification? If so, describe these and other critical periods and data requested in 6.a. for the other critical period(s). [40 CFR 125.62(a)(1)].

7. (L) Provide data on steady state sediment dissolved oxygen demand and dissolved oxygen demand due to resuspension of sediments in the vicinity of your current and modified discharge(s) (mg/L/day).

C. Biological Conditions

1. (L) Provide a detailed description of representative biological communities (e.g., plankton, macrobenthos, demersal fish, etc.) in the vicinity of your current and modified discharge(s): within the ZID, at the ZID boundary, at other areas of potential discharge-related impact, and at reference (control) sites. Community characteristics to be described shall include (but not be limited to) species composition; abundance; dominance and diversity; spatial/temporal distribution; growth and reproduction; disease frequency; trophic structure and productivity patterns; presence of opportunistic species; bioaccumulation of toxic materials; and the occurrence of mass mortalities.

2. (L,S)a. Are distinctive habitats of limited distribution (such as kelp beds or coral reefs) located in areas potentially affected by the modified discharge? [40 CFR 125.62(c)]

b. If yes, provide information on type, extent, and location of habitats.

3. (L,S)a. Are commercial or recreational fisheries located in areas potentially affected by the discharge? [40 CFR 125.62 (c) and (d)]

b. If yes, provide information on types, location, and value of fisheries.

D. State and Federal Laws [40 CFR 125.61 and 125.62(a)(1)]

1. (L,S) Are there water quality standards applicable to the following pollutants for which a modification is requested:

- Biochemical oxygen demand or dissolved oxygen?
- Suspended solids, turbidity, light transmission, light scattering, or maintenance of the euphotic zone?
- pH of the receiving water?

2. (L,S) If yes, what is the water use classification for your discharge area? What are the applicable standards for your discharge area for each of the parameters for which a modification is requested? Provide a copy of all applicable water quality standards or a citation to where they can be found.

3. (L,S) Will the modified discharge: [40 CFR 125.59(b)(3)].

- Be consistent with applicable State coastal zone management program(s) approved under the Coastal Zone Management Act as amended, 16 U.S.C. 1451 *et seq.*? [See 16 U.S.C. 1456(c)(3)(A)]

- Be located in a marine sanctuary designated under Title III of the Marine Protection, Research, and Sanctuaries Act (MPRSA) as amended, 16 U.S.C. 1431 *et seq.*, or in an estuarine sanctuary designated under the Coastal Zone Management Act as amended, 16 U.S.C. 1461? If located in a marine sanctuary designated under Title III of the MPRSA, attach a copy of any certification or permit required under regulations governing such marine sanctuary. [See 16 U.S.C. 1432(f)(2)]

- Be consistent with the Endangered Species Act as amended, 16 U.S.C. 1531 *et seq.*? Provide the names of any threatened or endangered species that inhabit or obtain nutrients from waters that may be affected by the modified discharge. Identify any critical habitat that may be affected by the modified discharge and evaluate whether the modified discharge will affect threatened or endangered species or modify a critical habitat. [See 16 U.S.C. 1536(a)(2)].

4. (L,S) Are you aware of any State or Federal laws or regulations (other than the Clean Water Act or the three statutes identified in item 3 above) or an Executive Order which is applicable to your discharge? If yes, provide sufficient information to demonstrate that your modified discharge will comply with such law(s), regulation(s), or order(s). [40 CFR 125.59 (b)(3)].

III. Technical Evaluation

A. Physical Characteristics of Discharge [40 CFR 125.62(a)]

1. (L,S) What is the critical initial dilution for your current and modified discharge(s) during (1) the period(s) of maximum stratification? and (2) any other critical period(s) of discharge volume/composition, water quality, biological seasons, or oceanographic conditions?

2. (L,S) What are the dimensions of the zone of initial dilution for your modified discharge(s)?

3. (L) What are the effects of ambient currents and stratification on dispersion and transport of the discharge plume/wastefield?

4. (S) Will there be significant sedimentation of suspended solids in the vicinity of the modified discharge?

5. (L) Sedimentation of suspended solids

a. What fraction of the modified discharge's suspended solids will accumulate within the vicinity of the modified discharge?

b. What are the calculated area(s) and rate(s) of sediment accumulation within the vicinity of the modified discharge(s) ($\text{g}/\text{m}^2/\text{yr}$)?

c. What is the fate of settleable solids transported beyond the calculated sediment accumulation area?

B. Compliance with Applicable Water Quality Standards and CWA § 304(a)(1) water quality criteria [40 CFR 125.61(b) and 125.62(a)]

1. (L,S) What is the concentration of dissolved oxygen immediately following initial dilution for the period(s) of maximum stratification and any other critical period(s) of discharge volume/composition, water quality, biological seasons, or oceanographic conditions?

2. (L,S) What is the farfield dissolved oxygen depression and resulting concentration due to BOD exertion of the wastefield during the period(s) of maximum stratification and any other critical period(s)?

3. (L) What are the dissolved oxygen depressions and resulting concentrations near the bottom due to steady sediment demand and resuspension of sediments?

4. (L,S) What is the increase in receiving water suspended solids concentration immediately following initial dilution of the modified discharge(s)?

5. (L) What is the change in receiving water pH immediately following initial dilution of the modified discharge(s)?

6. (L,S) Does (will) the modified discharge comply with applicable water quality standards for:

- Dissolved oxygen?

- Suspended solids or surrogate standards?

- pH?

7. (L,S) Provide data to demonstrate that all applicable State water quality standards, and all applicable water quality criteria established under Section 304(a)(1) of the Clean Water Act for which there are no directly corresponding numerical applicable water quality standards approved by EPA, are met at and beyond the boundary of the ZID under critical environmental and treatment plant conditions in the waters surrounding or adjacent to the point at which your effluent is discharged. [40 CFR 125.62(a)(1)]

8. (L,S) Provide the determination required by 40 CFR 125.61(b)(2) for compliance with all applicable provisions of State law, including water quality standards or, if the determination has not yet been received, a copy of a letter to the appropriate agency(s) requesting the required determination.

C. Impact on Public Water Supplies [40 CFR 125.62(b)]

1. (L,S) Is there a planned or existing public water supply (desalinization facility) intake in the vicinity of the current or modified discharge?

2. (L,S) If yes:

a. What is the location of the intake(s) (latitude and longitude)?

b. Will the modified discharge(s) prevent the use of intake(s) for public water supply?

c. Will the modified discharge(s) cause increased treatment requirements for public water supply(s) to meet local, State, and EPA drinking water standards?

D. Biological Impact of Discharge [40 CFR 125.62(c)]

1. (L,S) Does (will) a balanced indigenous population of shellfish, fish, and wildlife exist:

- Immediately beyond the ZID of the current and modified discharge(s)?

- In all other areas beyond the ZID where marine life is actually or potentially affected by the current and modified discharge(s)?

2. (L,S) Have distinctive habitats of limited distribution been impacted adversely by the current discharge and will such habitats be impacted adversely by the modified discharge?

3. (L,S) Have commercial or recreational fisheries been impacted adversely by the current discharge (e.g., warnings, restrictions, closures, or mass mortalities) or will they be impacted adversely by the modified discharge?

4. (L,S*) Does the current or modified discharge cause the following within or beyond the ZID: [40 CFR 125.62(c)(3)]

- Mass mortality of fishes or invertebrates due to oxygen depletion, high concentrations of toxics, or other conditions?

- An increased incidence of disease in marine organisms?

- An abnormal body burden of any toxic material in marine organisms?

- Any other extreme, adverse biological impacts?

5. (L,S) For discharges into saline estuarine waters: [40 CFR 125.62 (c)(4)]

- Does or will the current or modified discharge cause substantial differences in the benthic population within the ZID and beyond the ZID?

- Does or will the current or modified discharge interfere with migratory pathways within the ZID?
- Does or will the current or modified discharge result in bioaccumulation of toxic pollutants or pesticides at levels which exert adverse effects on the biota within the ZID?

No section (h) modified permit shall be issued where the discharge enters into stressed saline estuarine waters as stated in 40 CFR 125.59(b)(4).

6. (L,S) For improved discharges, will the proposed improved discharge(s) comply with the requirements of 40 CFR 125.62(a) through 125.62(d)? [40 CFR 125.62(e)]
7. (L,S) For altered discharge(s), will the altered discharge(s) comply with the requirements of 40 CFR 125.62(a) through 125.62(d)? [40 CFR 125.62(e)]
8. (L,S) If your current discharge is to stressed ocean waters, does or will your current or modified discharge: [40 CFR 125.62(f)]
 - Contribute to, increase, or perpetuate such stressed condition?
 - Contribute to further degradation of the biota or water quality if the level of human perturbation from other sources increases?
 - Retard the recovery of the biota or water quality if human perturbation from other sources decreases?

E. Impacts of Discharge on Recreational Activities [40 CFR 125.62(d)]

1. (L,S) Describe the existing or potential recreational activities likely to be affected by the modified discharge(s) beyond the zone of initial dilution.
2. (L,S) What are the existing and potential impacts of the modified discharge(s) on recreational activities? Your answer should include, but not be limited to, a discussion of fecal coliform bacteria.
3. (L,S) Are there any Federal, State, or local restrictions on recreational activities in the vicinity of the modified discharge(s)? If yes, describe the restrictions and provide citations to available references.
4. (L,S) If recreational restrictions exist, would such restrictions be lifted or modified if you were discharging a secondary treatment effluent?

F. Establishment of a Monitoring Program [40 CFR 125.63]

1. (L,S) Describe the biological, water quality, and effluent monitoring programs which you propose to meet the criteria of 40 CFR 125.63. Only those scientific investigations that are necessary to study the effects of the proposed discharge should be included in the scope of the 301(h) monitoring program [40 CFR 125.63(a)(1)(i)(B)].
2. (L,S) Describe the sampling techniques, schedules, and locations, analytical techniques, quality control and verification procedures to be used.
3. (L,S) Describe the personnel and financial resources available to implement the monitoring programs upon issuance of a modified permit and to carry it out for the life of the modified permit.

G. Effect of Discharge on Other Point and Nonpoint Sources [40 CFR 125.64]

1. (L,S) Does (will) your modified discharge(s) cause additional treatment or control requirements for any other point or nonpoint pollution source(s)?
2. (L,S) Provide the determination required by 40 CFR 125.64(b) or, if the determination has not yet been received, a copy of a letter to the appropriate agency(s) requesting the required determination.

H. Toxics Control Program and Urban Area Pretreatment Program [40 CFR 125.65 and 125.66]

1. a. (L,S) Do you have any known or suspected industrial sources of toxic pollutants or pesticides?
 - b. (L,S) If no, provide the certification required by 40 CFR 125.66(a)(2) for small dischargers, and required by 40 CFR 125.66(c)(2) for large dischargers.
 - c. (L,S*) Provide the results of wet and dry weather effluent analyses for toxic pollutants and pesticides as required by 40 CFR 125.66(a)(1). (* to the extent practicable)
 - d. (L,S*) Provide an analysis of known or suspected industrial sources of toxic pollutants and pesticides identified in (1)(c) above as required by 40 CFR 125.66(b). (* to the extent practicable)
2. (S)a. Are there any known or suspected water quality, sediment accumulation, or biological problems related to toxic pollutants or pesticides from your modified discharge(s)?
 - (S) b. If no, provide the certification required by 40 CFR 125.66(d)(2) together with available supporting data.
 - (S) c. If yes, provide a schedule for development and implementation of nonindustrial toxics control programs to meet the requirements of 40 CFR 126.66(d)(3).
 - (L) d. Provide a schedule for development and implementation of a nonindustrial toxics control program to meet the requirements of 40 CFR 125.66(d)(3).
3. (L,S) Describe the public education program you propose to minimize the entrance of nonindustrial toxic pollutants and pesticides into your treatment system. [40 CFR 125.66(d)(1)]
4. (L,S) Do you have an approved industrial pretreatment program?
 - a. If yes, provide the date of EPA approval.
 - b. If no, and if required by 40 CFR part 403 to have an industrial pretreatment program, provide a proposed schedule for development and implementation of your industrial pretreatment program to meet the requirements of 40 CFR part 403.
5. Urban area pretreatment requirement [40 CFR 125.65] Dischargers serving a population of 50,000 or more must respond.
 - a. Provide data on all toxic pollutants introduced into the treatment works from industrial sources (categorical and noncategorical).
 - b. Note whether applicable pretreatment requirements are in effect for each toxic pollutant. Are the industrial sources introducing such toxic pollutants in compliance with all of their pretreatment requirements? Are these pretreatment requirements being enforced? [40 CFR 125.65(b)(2)]
 - c. If applicable pretreatment requirements do not exist for each toxic pollutant in the POTW effluent introduced by industrial sources,
 - provide a description and a schedule for your development and implementation of applicable pretreatment requirements [40 CFR 125.65(c)], or
 - describe how you propose to demonstrate secondary removal equivalency for each of those toxic pollutants, including a schedule for compliance, by using a secondary treatment pilot plant. [40 CFR 125.65(d)]

Subpart H - Criteria for Determining Alternative Effluent Limitations Under Section 316(a) of the Act

§ 125.70 Purpose and scope.

Section 316(a) of the Act provides that:

“With respect to any point source otherwise subject to the provisions of section 301 or section 306 of this Act, whenever the owner or operator of any such source, after opportunity for public hearing, can demonstrate to the satisfaction of the Administrator (or, if appropriate, the State) that any effluent limitation proposed for the control of the thermal component of any discharge from such source will require effluent limitations more stringent than necessary to assure the projection [sic] and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made, the Administrator (or, if appropriate, the State) may impose an effluent limitation under such sections on such plant, with respect to the thermal component of such discharge (taking into account the interaction of such thermal component with other pollutants), that will assure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on that body of water.”

This subpart describes the factors, criteria and standards for the establishment of alternative thermal effluent limitations under section 316(a) of the Act in permits issued under section 402(a) of the Act.

§ 125.71 Definitions.

For the purpose of this subpart:

- (a) **Alternative effluent limitations** means all effluent limitations or standards of performance for the control of the thermal component of any discharge which are established under section 316(a) and this subpart.
- (b) **Representative important species** means species which are representative, in terms of their biological needs, of a balanced, indigenous community of shellfish, fish and wildlife in the body of water into which a discharge of heat is made.
- (c) The term *balanced, indigenous community* is synonymous with the term *balanced, indigenous population* in the Act and means a biotic community typically characterized by diversity, the capacity to sustain itself through cyclic seasonal changes, presence of necessary food chain species and by a lack of domination by pollution tolerant species. Such a community may include historically non-native species introduced in connection with a program of wildlife management and species whose presence or abundance results from substantial, irreversible environmental modifications. Normally, however, such a community will not include species whose presence or abundance is attributable to the introduction of pollutants that will be eliminated by compliance by all sources with section 301(b)(2) of the Act; and may not include species whose presence or abundance is attributable to alternative effluent limitations imposed pursuant to section 316(a).

§ 125.72 Early screening of applications for section 316(a) variances.

- (a) Any initial application for a section 316(a) variance shall include the following early screening information:
 - (1) A description of the alternative effluent limitation requested;
 - (2) A general description of the method by which the discharger proposes to demonstrate that the otherwise applicable thermal discharge effluent limitations are more stringent than necessary;
 - (3) A general description of the type of data, studies, experiments and other information which the discharger intends to submit for the demonstration; and
 - (4) Such data and information as may be available to assist the Director in selecting the appropriate representative important species.
- (b) After submitting the early screening information under paragraph (a) of this section, the discharger shall consult with the Director at the earliest practicable time (but not later than 30 days after the application is filed) to discuss the discharger's early screening information. Within 60 days after the application is filed, the discharger shall submit for the Director's approval a detailed plan of study which the discharger will undertake to support its section 316(a) demonstration. The discharger shall specify the nature and extent of the following type of information to be included in the plan of study: Biological, hydrographical and meteorological data; physical monitoring data; engineering or diffusion models; laboratory studies; representative important species; and other relevant information. In selecting representative important species, special consideration shall be given to species mentioned in applicable water quality standards. After the discharger submits its detailed plan of study, the Director shall either approve the plan or specify any necessary revisions to the plan. The discharger shall provide any additional information or studies which the Director subsequently determines necessary to support the demonstration, including such studies or inspections as may be necessary to select representative important species. The discharger may provide any additional information or studies which the discharger feels are appropriate to support the demonstration.

- (c) Any application for the renewal of a section 316(a) variance shall include only such information described in paragraphs (a) and (b) of this section as the Director requests within 60 days after receipt of the permit application.
- (d) The Director shall promptly notify the Secretary of Commerce and the Secretary of the Interior, and any affected State of the filing of the request and shall consider any timely recommendations they submit.
- (e) In making the demonstration the discharger shall consider any information or guidance published by EPA to assist in making such demonstrations.
- (f) If an applicant desires a ruling on a section 316(a) application before the ruling on any other necessary permit terms and conditions, (as provided by § 124.65), it shall so request upon filing its application under paragraph (a) of this section. This request shall be granted or denied at the discretion of the Director.

Note:

At the expiration of the permit, any discharger holding a section 316(a) variance should be prepared to support the continuation of the variance with studies based on the discharger's actual operation experience.

[44 FR 32948, June 7, 1979, as amended at 45 FR 33513, May 19, 1980; 65 FR 30913, May 15, 2000]

§ 125.73 Criteria and standards for the determination of alternative effluent limitations under section 316(a).

- (a) Thermal discharge effluent limitations or standards established in permits may be less stringent than those required by applicable standards and limitations if the discharger demonstrates to the satisfaction of the director that such effluent limitations are more stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made. This demonstration must show that the alternative effluent limitation desired by the discharger, considering the cumulative impact of its thermal discharge together with all other significant impacts on the species affected, will assure the protection and propagation of a balanced indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made.
- (b) In determining whether or not the protection and propagation of the affected species will be assured, the Director may consider any information contained or referenced in any applicable thermal water quality criteria and thermal water quality information published by the Administrator under section 304(a) of the Act, or any other information he deems relevant.
- (c)
 - (1) Existing dischargers may base their demonstration upon the absence of prior appreciable harm in lieu of predictive studies. Any such demonstrations shall show:
 - (i) That no appreciable harm has resulted from the normal component of the discharge (taking into account the interaction of such thermal component with other pollutants and the additive effect of other thermal sources to a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge has been made; or
 - (ii) That despite the occurrence of such previous harm, the desired alternative effluent limitations (or appropriate modifications thereof) will nevertheless assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made.
 - (2) In determining whether or not prior appreciable harm has occurred, the Director shall consider the length of time in which the applicant has been discharging and the nature of the discharge.

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

Source: 66 FR 65338, Dec. 18, 2001, unless otherwise noted.

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

- (a) This subpart establishes requirements that apply to the location, design, construction, and capacity of cooling water intake structures at new facilities. The purpose of these requirements is to establish the best technology available for minimizing adverse environmental impact associated with the use of cooling water intake structures. These requirements are implemented through National Pollutant Discharge Elimination System (NPDES) permits issued under section 402 of the Clean Water Act (CWA).
- (b) This subpart implements section 316(b) of the CWA for new facilities. Section 316(b) of the CWA provides that any standard established pursuant to sections 301 or 306 of the CWA and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.
- (c) New facilities that do not meet the threshold requirements regarding amount of water withdrawn or percentage of water withdrawn for cooling water purposes in § 125.81(a) must meet requirements determined on a case-by-case, best professional judgement (BPJ) basis.
- (d) Nothing in this subpart shall be construed to preclude or deny the right of any State or political subdivision of a State or any interstate agency under section 510 of the CWA to adopt or enforce any requirement with respect to control or abatement of pollution that is more stringent than those required by Federal law.

§ 125.81 Who is subject to this subpart?

- (a) This subpart applies to a new facility if it:
 - (1) Is a point source that uses or proposes to use a cooling water intake structure;
 - (2) Has at least one cooling water intake structure that uses at least 25 percent of the water it withdraws for cooling purposes as specified in paragraph (c) of this section; and
 - (3) Has a design intake flow greater than two (2) million gallons per day (MGD).
- (b) Use of a cooling water intake structure includes obtaining cooling water by any sort of contract or arrangement with an independent supplier (or multiple suppliers) of cooling water if the supplier or suppliers withdraw(s) water from waters of the United States. Use of cooling water does not include obtaining cooling water from a public water system or the use of treated effluent that otherwise would be discharged to a water of the U.S. This provision is intended to prevent circumvention of these requirements by creating arrangements to receive cooling water from an entity that is not itself a point source.
- (c) The threshold requirement that at least 25 percent of water withdrawn be used for cooling purposes must be measured on an average monthly basis. A new facility meets the 25 percent cooling water threshold if, based on the new facility's design, any monthly average over a year for the percentage of cooling water withdrawn is expected to equal or exceed 25 percent of the total water withdrawn.
- (d) This subpart does not apply to facilities that employ cooling water intake structures in the offshore and coastal subcategories of the oil and gas extraction point source category as defined under 40 CFR 435.10 and 40 CFR 435.40.

§ 125.82 When must I comply with this subpart?

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

§ 125.83 What special definitions apply to this subpart?

The following special definitions apply to this subpart:

Annual mean flow means the average of daily flows over a calendar year. Historical data (up to 10 years) must be used where available.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (1) Examples of "new facilities" include, but are not limited to: the following scenarios:
- (i) A new facility is constructed on a site that has never been used for industrial or commercial activity. It has a new cooling water intake structure for its own use.
 - (ii) A facility is demolished and another facility is constructed in its place. The newly-constructed facility uses the original facility's cooling water intake structure, but modifies it to increase the design capacity to accommodate the intake of additional cooling water.
 - (iii) A facility is constructed on the same property as an existing facility, but is a separate and independent industrial operation. The cooling water intake structure used by the original facility is modified by constructing a new intake bay for the use of the newly constructed facility or is otherwise modified to increase the intake capacity for the new facility.
- (2) Examples of facilities that would not be considered a "new facility" include, but are not limited to, the following scenarios:
- (i) A facility in commercial or industrial operation is modified and either continues to use its original cooling water intake structure or uses a new or modified cooling water intake structure.
 - (ii) A facility has an existing intake structure. Another facility (a separate and independent industrial operation), is constructed on the same property and connects to the facility's cooling water intake structure behind the intake pumps, and the design capacity of the cooling water intake structure has not been increased. This facility would not be considered a "new facility" even if routine maintenance or repairs that do not increase the design capacity were performed on the intake structure.

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

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

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

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

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

[66 FR 65338, Dec. 18, 2001, as amended at 68 FR 36754, June 19, 2003]

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

- (a)
- (1) The owner or operator of a new facility must comply with either:
 - (i) Track I in paragraph (b) or (c) of this section; or
 - (ii) Track II in paragraph (d) of this section.
 - (2) In addition to meeting the requirements in paragraph (b), (c), or (d) of this section, the owner or operator of a new facility may be required to comply with paragraph (e) of this section.
- (b) **Track I requirements for new facilities that withdraw equal to or greater than 10 MGD.** You must comply with all of the following requirements:
- (1) You must reduce your intake flow, at a minimum, to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system;
 - (2) You must design and construct each cooling water intake structure at your facility to a maximum through-screen design intake velocity of 0.5 ft/s;
 - (3) You must design and construct your cooling water intake structure such that the total design intake flow from all cooling water intake structures at your facility meets the following requirements:
 - (i) For cooling water intake structures located in a freshwater river or stream, the total design intake flow must be no greater than five (5) percent of the source water annual mean flow;

- (ii) For cooling water intake structures located in a lake or reservoir, the total design intake flow must not disrupt the natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies);
 - (iii) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level;
- (4) You must select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish if:
- (i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or
 - (ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the cooling water intake structure; or
 - (iii) It is determined by the Director, based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(1), (2), and (3) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern;
- (5) You must select and implement design and construction technologies or operational measures for minimizing entrainment of entrainable life stages of fish and shellfish if:
- (i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or
 - (ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are or would be undesirable cumulative stressors affecting entrainable life stages of species of concern to the Director and the Director determines that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(1), (2), and (3) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or these species of concern;
- (6) You must submit the application information required in 40 CFR 122.21(r) and § 125.86(b);
- (7) You must implement the monitoring requirements specified in § 125.87;
- (8) You must implement the record-keeping requirements specified in § 125.88.
- (c) ***Track I requirements for new facilities that withdraw greater than 2 mgd and less than 10 mgd and that choose not to comply with paragraph (b) of this section.*** You must comply with all the following requirements:
- (1) You must design and construct each cooling water intake structure at your facility to a maximum through-screen design intake velocity of 0.5 ft/s;
 - (2) You must design and construct your cooling water intake structure such that the total design intake flow from all cooling water intake structures at your facility meets the following requirements:
 - (i) For cooling water intake structures located in a freshwater river or stream, the total design intake flow must be no greater than five (5) percent of the source water annual mean flow;
 - (ii) For cooling water intake structures located in a lake or reservoir, the total design intake flow must not disrupt the natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies);
 - (iii) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level;
 - (3) You must select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish if:

- (i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or
 - (ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the cooling water intake structure; or
 - (iii) It is determined by the Director, based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in paragraphs (c)(1) and (2) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern;
- (4) You must select and implement design and construction technologies or operational measures for minimizing entrainment of entrainable life stages of fish and shellfish;
 - (5) You must submit the application information required in 40 CFR 122.21(r) and § 125.86(b)(2), (3), and (4);
 - (6) You must implement the monitoring requirements specified in § 125.87;
 - (7) You must implement the recordkeeping requirements specified in § 125.88.
- (d) **Track II.** The owner or operator of a new facility that chooses to comply under Track II must comply with the following requirements:
- (1) You must demonstrate to the Director that the technologies employed will reduce the level of adverse environmental impact from your cooling water intake structures to a 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.
 - (2) You must design and construct your cooling water intake structure such that the total design intake flow from all cooling water intake structures at your facility meet the following requirements:
 - (i) For cooling water intake structures located in a freshwater river or stream, the total design intake flow must be no greater than five (5) percent of the source water annual mean flow;
 - (ii) For cooling water intake structures located in a lake or reservoir, the total design intake flow must not disrupt the natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies);
 - (iii) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level.
 - (3) You must submit the application information required in 40 CFR 122.21(r) and § 125.86(c).
 - (4) You must implement the monitoring requirements specified in § 125.87.
 - (5) You must implement the record-keeping requirements specified in § 125.88.
- (e) You must comply with any more stringent requirements relating to the location, design, construction, and capacity of a cooling water intake structure or monitoring requirements at a new facility that the Director deems are reasonably necessary to comply with any provision of state law, including compliance with applicable state water quality standards (including designated uses, criteria, and antidegradation requirements).

[66 FR 65338, Dec. 18, 2001, as amended at 68 FR 36754, June 19, 2003; 79 FR 48429, Aug. 15, 2014]

§ 125.85 May alternative requirements be authorized?

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

- (1) There is an applicable requirement under § 125.84(a) through (e);
 - (2) The Director determines that data specific to the facility indicate that compliance with the requirement at issue would result in compliance costs wholly out of proportion to the costs EPA considered in establishing the requirement at issue or would result in significant adverse impacts on local air quality, significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on local energy markets;
 - (3) The alternative requirement requested is no less stringent than justified by the wholly out of proportion cost or the significant adverse impacts on local air quality, significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on local energy markets; and
 - (4) The alternative requirement will ensure compliance with other applicable provisions of the Clean Water Act and any applicable requirement of state law.
- (b) The burden is on the person requesting the alternative requirement to demonstrate that alternative requirements should be authorized.

[66 FR 65338, Dec. 18, 2001, as amended at 68 FR 36755, June 19, 2003]

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

- (a)
- (1) As an owner or operator of a new facility, you must submit to the Director a statement that you intend to comply with either:
 - (i) The Track I requirements for new facilities that withdraw equal to or greater than 10 MGD in § 125.84(b);
 - (ii) The Track I requirements for new facilities that withdraw greater than 2 mgd and less than 10 mgd in § 125.84(c);
 - (2) You must also submit the application information required by 40 CFR 122.21(r) and the information required in either paragraph (b) of this section for Track I or paragraph (c) of this section for Track II when you apply for a new or reissued NPDES permit in accordance with 40 CFR 122.21.
- (b) **Track I application requirements.** To demonstrate compliance with Track I requirements in § 125.84(b) or (c), you must collect and submit to the Director the information in paragraphs (b)(1) through (4) of this section.
- (1) **Flow reduction information.** If you must comply with the flow reduction requirements in § 125.84(b)(1), you must submit the following information to the Director to demonstrate that you have reduced your flow to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system:
 - (i) A narrative description of your system that has been designed to reduce your intake flow to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system and any engineering calculations, including documentation demonstrating that your make-up and blowdown flows have been minimized; and
 - (ii) If the flow reduction requirement is met entirely, or in part, by reusing or recycling water withdrawn for cooling purposes in subsequent industrial processes, you must provide documentation that the amount of cooling water that is not reused or recycled has been minimized.
 - (2) **Velocity information.** You must submit the following information to the Director to demonstrate that you are complying with the requirement to meet a maximum through-screen design intake velocity of no more than 0.5 ft/s at each cooling water intake structure as required in § 125.84(b)(2) and (c)(1):
 - (i) A narrative description of the design, structure, equipment, and operation used to meet the velocity requirement; and
 - (ii) Design calculations showing that the velocity requirement will be met at minimum ambient source water surface elevations (based on best professional judgement using available hydrological data) and maximum head loss across the screens or other device.
 - (3) **Source waterbody flow information.** You must submit to the Director the following information to demonstrate that your cooling water intake structure meets the flow requirements in § 125.84(b)(3) or (c)(2).

- (i) If your cooling water intake structure is located in a freshwater river or stream, you must provide the annual mean flow and any supporting documentation and engineering calculations to show that your cooling water intake structure meets the flow requirements;
 - (ii) If your cooling water intake structure is located in an estuary or tidal river, you must provide the mean low water tidal excursion distance and any supporting documentation and engineering calculations to show that your cooling water intake structure facility meets the flow requirements; and
 - (iii) If your cooling water intake structure is located in a lake or reservoir, you must provide a narrative description of the water body thermal stratification, and any supporting documentation and engineering calculations to show that the natural thermal stratification and turnover pattern will not be disrupted by the total design intake flow. In cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish you must provide supporting documentation and include a written concurrence from any fisheries management agency(ies) with responsibility for fisheries potentially affected by your cooling water intake structure(s).
- (4) **Design and Construction Technology Plan.** To comply with § 125.84(b)(4) and (5), or (c)(3) and (c)(4), you must submit to the Director the following information in a Design and Construction Technology Plan:
- (i) Information to demonstrate whether or not you meet the criteria in § 125.84(b)(4) and (b)(5), or (c)(3) and (c)(4);
 - (ii) Delineation of the hydraulic zone of influence for your cooling water intake structure;
 - (iii) 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:
 - (A) A narrative description of the design and operation of the design and construction technologies, including fish-handling and return systems, that you will use to maximize the survival of those species expected to be most susceptible to impingement. Provide species-specific information that demonstrates the efficacy of the technology;
 - (B) A narrative description of the design and operation of the design and construction technologies that you will use to minimize entrainment of those species expected to be the most susceptible to entrainment. Provide species-specific information that demonstrates the efficacy of the technology; and
 - (C) Design calculations, drawings, and estimates to support the descriptions provided in paragraphs (b)(4)(iii)(A) and (B) of this section.
- (c) **Application requirements for Track II.** If you have chosen to comply with the requirements of Track II in § 125.84(d) you must collect and submit the following information:
- (1) **Source waterbody flow information.** You must submit to the Director the following information to demonstrate that your cooling water intake structure meets the source water body requirements in § 125.84(d)(2):
- (i) If your cooling water intake structure is located in a freshwater river or stream, you must provide the annual mean flow and any supporting documentation and engineering calculations to show that your cooling water intake structure meets the flow requirements;
 - (ii) If your cooling water intake structure is located in an estuary or tidal river, you must provide the mean low water tidal excursion distance and any supporting documentation and engineering calculations to show that your cooling water intake structure facility meets the flow requirements; and
 - (iii) If your cooling water intake structure is located in a lake or reservoir, you must provide a narrative description of the water body thermal stratification, and any supporting documentation and engineering calculations to show that the natural thermal stratification and thermal or turnover pattern will not be disrupted by the total design intake flow. In cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish you must provide supporting documentation and include a written concurrence from any fisheries management agency(ies) with responsibility for fisheries potentially affected by your cooling water intake structure(s).

- (2) **Track II Comprehensive Demonstration Study.** You must perform and submit the results of a Comprehensive Demonstration Study (Study). This information is required to characterize the source water baseline in the vicinity of the cooling water intake structure(s), characterize operation of the cooling water intake(s), and to confirm that the technology(ies) proposed and/or implemented at your cooling water intake structure reduce the impacts to fish and shellfish to levels comparable to those you would achieve were you to implement the requirements in § 125.84(b) (1) and (2) of Track I. To meet the “comparable level” requirement, you must demonstrate that:
- (i) You have reduced both impingement mortality and entrainment of all life stages of fish and shellfish to 90 percent or greater of the reduction that would be achieved through § 125.84(b)(1) and (2); or
 - (ii) [Reserved]
 - (iii) You must develop and submit a plan to the Director containing a proposal for how information will be collected to support the study. The plan must include:
 - (A) A description of the proposed and/or implemented technology(ies) to be evaluated in the Study;
 - (B) A list and description of any historical studies characterizing the physical and biological conditions in the vicinity of the proposed or actual intakes and their relevancy to the proposed Study. If you propose to rely on existing source water body data, it must be no more than 5 years old, you must demonstrate that the existing data are sufficient to develop a scientifically valid estimate of potential impingement and entrainment impacts, and provide documentation showing that the data were collected using appropriate quality assurance/quality control procedures;
 - (C) Any public participation or consultation with Federal or State agencies undertaken in developing the plan; and
 - (D) A sampling plan for data that will be collected using actual field studies in the source water body. The sampling plan must document all methods and quality assurance procedures for sampling, and data analysis. The sampling and data analysis methods you propose must be appropriate for a quantitative survey and based on consideration of methods used in other studies performed in the source water body. The sampling plan must include a description of the study area (including the area of influence of the cooling water intake structure and at least 100 meters beyond); taxonomic identification of the sampled or evaluated biological assemblages (including all life stages of fish and shellfish); and sampling and data analysis methods; and
 - (iv) You must submit documentation of the results of the Study to the Director. Documentation of the results of the Study must include:
 - (A) **Source Water Biological Study.** The Source Water Biological Study must include:
 - (1) A taxonomic identification and characterization of aquatic biological resources including: a summary of historical and contemporary aquatic biological resources; determination and description of the target populations of concern (those species of fish and shellfish and all life stages that are most susceptible to impingement and entrainment); and a description of the abundance and temporal/spatial characterization of the target populations based on the collection of multiple years of data to capture the seasonal and daily activities (e.g., spawning, feeding and water column migration) of all life stages of fish and shellfish found in the vicinity of the cooling water intake structure;
 - (2) An identification of all threatened or endangered species that might be susceptible to impingement and entrainment by the proposed cooling water intake structure(s); and
 - (3) A description of additional chemical, water quality, and other anthropogenic stresses on the source waterbody.
 - (B) **Evaluation of potential cooling water intake structure effects.** This evaluation will include:
 - (1) Calculations of the reduction in impingement mortality and entrainment of all life stages of fish and shellfish that would need to be achieved by the technologies you have selected to implement to meet requirements under Track II. To do this, you must determine the reduction in impingement mortality and entrainment that would be achieved by implementing the requirements of § 125.84(b) (1) and (2) of Track I at your site.
 - (2) An engineering estimate of efficacy for the proposed and/or implemented technologies used to minimize impingement mortality and entrainment of all life stages of fish and shellfish and maximize survival of impinged life stages of fish and shellfish. You must demonstrate that the

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

(C) [Reserved]

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

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

(2) [Reserved]

[66 FR 65338, Dec. 18, 2001, as amended at 79 FR 48429, Aug. 15, 2014]

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

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

- (a) **Biological monitoring.** You must monitor both impingement and entrainment of the commercial, recreational, and forage base fish and shellfish species identified in either the Source Water Baseline Biological Characterization data required by 40 CFR 122.21(r)(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.
- (1) **Impingement sampling.** You must collect samples to monitor impingement rates (simple enumeration) for each species over a 24-hour period and no less than once per month when the cooling water intake structure is in operation.
- (2) **Entrainment sampling.** You must collect samples 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.
- (b) **Velocity monitoring.** If your facility uses surface intake screen systems, you must monitor head loss across the screens and correlate the measured value with the design intake velocity. The head loss across the intake screen must be measured at the minimum ambient source water surface elevation (best professional judgment based on available hydrological data). The maximum head loss across the screen for each cooling water intake structure must be used to determine compliance with the velocity requirement in § 125.84(b)(2) or (c)(1). If your facility uses devices other than surface intake screens, you must monitor velocity at the point of entry through the device. You must monitor head loss or velocity during initial facility startup, and thereafter, at the frequency specified in your NPDES permit, but no less than once per quarter.
- (c) **Visual or remote inspections.** You must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation. You must conduct visual inspections at least weekly to ensure that any design and construction technologies required in § 125.84(b)(4) and (5), or (c)(3) and (4) are maintained

and operated to ensure that they will continue to function as designed. Alternatively, you must inspect via remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed.

[66 FR 65338, Dec. 18, 2001, as amended at 79 FR 48429, Aug. 15, 2014]

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

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

- (a) You must keep records of all the data used to complete the permit application and show compliance with the requirements, any supplemental information developed under § 125.86, and any compliance monitoring data submitted under § 125.87, for a period of at least three (3) years from the date of permit issuance. The Director may require that these records be kept for a longer period.
- (b) You must provide the following to the Director in a yearly status report:
 - (1) Biological monitoring records for each cooling water intake structure as required by § 125.87(a);
 - (2) Velocity and head loss monitoring records for each cooling water intake structure as required by § 125.87(b); and
 - (3) Records of visual or remote inspections as required in § 125.87(c).

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

- (a) **Permit application.** As the Director, you must review materials submitted by the applicant under 40 CFR 122.21(r)(4) and § 125.86 at the time of the initial permit application and before each permit renewal or reissuance.
 - (1) After receiving the initial permit application from the owner or operator of a new facility, the Director must determine applicable standards in § 125.84 to apply to the new facility. In addition, the Director must review materials to determine compliance with the applicable standards.
 - (2) For each subsequent permit renewal, the Director must review the application materials and monitoring data to determine whether requirements, or additional requirements, for design and construction technologies or operational measures should be included in the permit.
 - (3) For Track II facilities, the Director may review the information collection proposal plan required by § 125.86(c)(2)(iii). The facility may initiate sampling and data collection activities prior to receiving comment from the Director.
- (b) **Permitting requirements.** Section 316(b) requirements are implemented for a facility through an NPDES permit. As the Director, you must determine, based on the information submitted by the new facility in its permit application, the appropriate requirements and conditions to include in the permit based on the track (Track I or Track II) the new facility has chosen to comply with. The following requirements must be included in each permit:
 - (1) **Cooling water intake structure requirements.** At a minimum, the permit conditions must include the performance standards that implement the requirements of § 125.84(b)(1), (2), (3), (4) and (5); § 125.84(c)(1), (2), (3) and (4); or § 125.84(d)(1) and (2). In determining compliance with proportional flow requirement in §§ 125.84(b)(3)(ii); (c)(2)(ii); and (d)(2)(ii), the director must consider anthropogenic factors (those not considered "natural") unrelated to the new facility's cooling water intake structure that can influence the occurrence and location of a thermocline. These include source water inflows, other water withdrawals, managed water uses, wastewater discharges, and flow/level management practices (e.g., some reservoirs release water from below the surface, close to the deepest areas).
 - (i) 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).
- (2) **Monitoring conditions.** At a minimum, the permit must require the permittee to perform the monitoring required in § 125.87. You may modify the monitoring program when the permit is reissued and during the term of the permit based on changes in physical or biological conditions in the vicinity of the cooling water intake structure. The Director may require continued monitoring based on the results of the Verification Monitoring Plan in § 125.86(c)(2)(iv)(D).
- (3) **Record keeping and reporting.** At a minimum, the permit must require the permittee to report and keep records as required by § 125.88.

[66 FR 65338, Dec. 18, 2001, as amended at 79 FR 48429, Aug. 15, 2014]

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

Source: 79 FR 48430, Aug. 15, 2014, unless otherwise noted.

§ 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 a³/₈ inch square mesh, or a¹/₂ by¹/₄ 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 CFR 122.21(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 inasmuch 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 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]

Subpart K [Reserved]

Subpart L - Criteria and Standards for Imposing Conditions for the Disposal of Sewage Sludge Under Section 405 of the Act [Reserved]

Subpart M - Ocean Discharge Criteria

Source: 45 FR 65953, Oct. 3, 1980, unless otherwise noted.

§ 125.120 Scope and purpose.

This subpart establishes guidelines for issuance of National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants from a point source into the territorial seas, the contiguous zone, and the oceans.

§ 125.121 Definitions.

- (a) **Irreparable harm** means significant undesirable effects occurring after the date of permit issuance which will not be reversed after cessation or modification of the discharge.
- (b) **Marine environment** means that territorial seas, the contiguous zone and the oceans.
- (c) **Mixing zone** means the zone extending from the sea's surface to seabed and extending laterally to a distance of 100 meters in all directions from the discharge point(s) or to the boundary of the zone of initial dilution as calculated by a plume model approved by the director, whichever is greater, unless the director determines that the more restrictive mixing zone or another definition of the mixing zone is more appropriate for a specific discharge.
- (d) **No reasonable alternatives** means:
 - (1) No land-based disposal sites, discharge point(s) within internal waters, or approved ocean dumping sites within a reasonable distance of the site of the proposed discharge the use of which would not cause unwarranted economic impacts on the discharger, or, notwithstanding the availability of such sites,
 - (2) On-site disposal is environmentally preferable to other alternative means of disposal after consideration of:
 - (i) The relative environmental harm of disposal on-site, in disposal sites located on land, from discharge point(s) within internal waters, or in approved ocean dumping sites, and
 - (ii) The risk to the environment and human safety posed by the transportation of the pollutants.
- (e) **Unreasonable degradation of the marine environment** means:
 - (1) Significant adverse changes in ecosystem diversity, productivity and stability of the biological community within the area of discharge and surrounding biological communities,
 - (2) Threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms, or
 - (3) Loss of esthetic, recreational, scientific or economic values which is unreasonable in relation to the benefit derived from the discharge.

§ 125.122 Determination of unreasonable degradation of the marine environment.

- (a) The director shall determine whether a discharge will cause unreasonable degradation of the marine environment based on consideration of:
- (1) The quantities, composition and potential for bioaccumulation or persistence of the pollutants to be discharged;
 - (2) The potential transport of such pollutants by biological, physical or chemical processes;
 - (3) The composition and vulnerability of the biological communities which may be exposed to such pollutants, including the presence of unique species or communities of species, the presence of species identified as endangered or threatened pursuant to the Endangered Species Act, or the presence of those species critical to the structure or function of the ecosystem, such as those important for the food chain;
 - (4) The importance of the receiving water area to the surrounding biological community, including the presence of spawning sites, nursery/forage areas, migratory pathways, or areas necessary for other functions or critical stages in the life cycle of an organism.
 - (5) The existence of special aquatic sites including, but not limited to marine sanctuaries and refuges, parks, national and historic monuments, national seashores, wilderness areas and coral reefs;
 - (6) The potential impacts on human health through direct and indirect pathways;
 - (7) Existing or potential recreational and commercial fishing, including finfishing and shellfishing;
 - (8) Any applicable requirements of an approved Coastal Zone Management plan;
 - (9) Such other factors relating to the effects of the discharge as may be appropriate;
 - (10) Marine water quality criteria developed pursuant to section 304(a)(1).
- (b) Discharges in compliance with section 301(g), 301(h), or 316(a) variance requirements or State water quality standards shall be presumed not to cause unreasonable degradation of the marine environment, for any specific pollutants or conditions specified in the variance or the standard.

§ 125.123 Permit requirements.

- (a) If the director on the basis of available information including that supplied by the applicant pursuant to § 125.124 determines prior to permit issuance that the discharge will not cause unreasonable degradation of the marine environment after application of any necessary conditions specified in § 125.123(d), he may issue an NPDES permit containing such conditions.
- (b) If the director, on the basis of available information including that supplied by the applicant pursuant to § 125.124 determines prior to permit issuance that the discharge will cause unreasonable degradation of the marine environment after application of all possible permit conditions specified in § 125.123(d), he may not issue an NPDES permit which authorizes the discharge of pollutants.
- (c) If the director has insufficient information to determine prior to permit issuance that there will be no unreasonable degradation of the marine environment pursuant to § 125.122, there shall be no discharge of pollutants into the marine environment unless the director on the basis of available information, including that supplied by the applicant pursuant to § 125.124 determines that:
- (1) Such discharge will not cause irreparable harm to the marine environment during the period in which monitoring is undertaken, and
 - (2) There are no reasonable alternatives to the on-site disposal of these materials, and
 - (3) The discharge will be in compliance with all permit conditions established pursuant to paragraph (d) of this section.
- (d) All permits which authorize the discharge of pollutants pursuant to paragraph (c) of this section shall:
- (1) Require that a discharge of pollutants will:
 - (i) Following dilution as measured at the boundary of the mixing zone not exceed the limiting permissible concentration for the liquid and suspended particulate phases of the waste material as described in § 227.27(a) (2) and (3), § 227.27(b), and § 227.27(c) of the Ocean Dumping Criteria; and

- (ii) not exceed the limiting permissible concentration for the solid phase of the waste material or cause an accumulation of toxic materials in the human food chain as described in § 227.27 (b) and (d) of the Ocean Dumping Criteria;
- (2) Specify a monitoring program, which is sufficient to assess the impact of the discharge on water, sediment, and biological quality including, where appropriate, analysis of the bioaccumulative and/or persistent impact on aquatic life of the discharge;
- (3) Contain any other conditions, such as performance of liquid or suspended particulate phase bioaccumulation tests, seasonal restrictions on discharge, process modifications, dispersion of pollutants, or schedule of compliance for existing discharges, which are determined to be necessary because of local environmental conditions, and
- (4) Contain the following clause: In addition to any other grounds specified herein, this permit shall be modified or revoked at any time if, on the basis of any new data, the director determines that continued discharges may cause unreasonable degradation of the marine environment.

§ 125.124 Information required to be submitted by applicant.

The applicant is responsible for providing information which the director may request to make the determination required by this subpart. The director may require the following information as well as any other pertinent information:

- (a) An analysis of the chemical constituents of any discharge;
- (b) Appropriate bioassays necessary to determine the limiting permissible concentrations for the discharge;
- (c) An analysis of initial dilution;
- (d) Available process modifications which will reduce the quantities of pollutants which will be discharged;
- (e) Analysis of the location where pollutants are sought to be discharged, including the biological community and the physical description of the discharge facility;
- (f) Evaluation of available alternatives to the discharge of the pollutants including an evaluation of the possibility of land-based disposal or disposal in an approved ocean dumping site.

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

Source: 71 FR 35040, June 16, 2006, unless otherwise noted.

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

- (a) This subpart establishes requirements that apply to the location, design, construction, and capacity of cooling water intake structures at new offshore oil and gas extraction facilities. The purpose of these requirements is to establish the best technology available for minimizing adverse environmental impact associated with the use of cooling water intake structures at these facilities. These requirements are implemented through National Pollutant Discharge Elimination System (NPDES) permits issued under section 402 of the Clean Water Act (CWA).
- (b) This subpart implements section 316(b) of the CWA for new offshore oil and gas extraction facilities. Section 316(b) of the CWA provides that any standard established pursuant to sections 301 or 306 of the CWA and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.
- (c) New offshore oil and gas extraction facilities that do not meet the threshold requirements regarding amount of water withdrawn or percentage of water withdrawn for cooling water purposes in § 125.131(a) must meet requirements determined by the Director on a case-by-case, best professional judgement (BPJ) basis.
- (d) Nothing in this subpart shall be construed to preclude or deny the right of any State or political subdivision of a State or any interstate agency under section 510 of the CWA to adopt or enforce any requirement with respect to control or abatement of pollution that is more stringent than those required by Federal law.

§ 125.131 Who is subject to this subpart?

- (a) This subpart applies to a new offshore oil and gas extraction facility if it meets all of the following criteria:
- (1) It is a point source that uses or proposes to use a cooling water intake structure;
 - (2) It has at least one cooling water intake structure that uses at least 25 percent of the water it withdraws for cooling purposes as specified in paragraph (c) of this section; and
 - (3) It has a design intake flow greater than two (2) million gallons per day (MGD).
- (b) Use of a cooling water intake structure includes obtaining cooling water by any sort of contract or arrangement with an independent supplier (or multiple suppliers) of cooling water if the supplier or suppliers withdraw(s) water from waters of the United States. Use of cooling water does not include obtaining cooling water from a public water system or the use of treated effluent that otherwise would be discharged to a water of the U.S.
- (c) The threshold requirement that at least 25 percent of water withdrawn be used for cooling purposes must be measured on an average monthly basis. A new offshore oil and gas extraction facility meets the 25 percent cooling water threshold if, based on the new facility's design, any monthly average over a year for the percentage of cooling water withdrawn is expected to equal or exceed 25 percent of the total water withdrawn.
- (d) Neither this subpart nor Subpart I of this part applies to seafood processing vessels or offshore liquefied natural gas import terminals that are new facilities as defined in 40 CFR 125.83. Seafood processing vessels and offshore liquefied natural gas import terminals must meet requirements established by the Director on a case-by-case, best professional judgment (BPJ) basis.

§ 125.132 When must I comply with this subpart?

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

§ 125.133 What special definitions apply to this subpart?

In addition to the definitions set forth at 40 CFR 125.83, the following special definitions apply to this subpart:

Cooling water means water used for contact or noncontact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content. The intended use of the cooling water is to absorb waste heat rejected from the process or processes used, or from auxiliary operations on the facility's premises. Cooling water that is used in another industrial process either before or after it is used for cooling is considered process water rather than cooling water for the purposes of calculating the percentage of a new offshore oil and gas extraction facility's intake flow that is used for cooling purposes in § 125.131(c).

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

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

New offshore oil and gas extraction facility means any building, structure, facility, or installation that: meets the definition of a "new facility" at 40 CFR 125.83; and is regulated by the Offshore or Coastal Subcategories of the Oil and Gas Extraction Point Source Category Effluent Guidelines in 40 CFR 435.10 or 40 CFR 435.40; but only if it commences construction after July 17, 2006.

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

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

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

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

- (a)
- (1) The owner or operator of a new offshore oil and gas extraction facility must comply with:
 - (i) Track I in paragraph (b) or Track II in paragraph (c) of this section, if it is a fixed facility; or
 - (ii) Track I in paragraph (b) of this section, if it is *not* a fixed facility.
 - (2) In addition to meeting the requirements in paragraph (b) or (c) of this section, the owner or operator of a new offshore oil and gas extraction facility may be required to comply with paragraph (d) of this section.
- (b) **Track I requirements for new offshore oil and gas extraction facilities.**
- (1)
 - (i) New offshore oil and gas extraction facilities that *do not* employ sea chests as cooling water intake structures and are fixed facilities must comply with all of the requirements in paragraphs (b)(2) through (8) of this section.
 - (ii) New offshore oil and gas extraction facilities that employ sea chests as cooling water intake structures and are fixed facilities must comply with the requirements in paragraphs (b)(2), (3), (4), (6), (7), and (8) of this section.
 - (iii) New offshore oil and gas extraction facilities that are *not* fixed facilities must comply with the requirements in paragraphs (b)(2), (4), (6), (7), and (8) of this section.
 - (2) You must design and construct each cooling water intake structure at your facility to a maximum through-screen design intake velocity of 0.5 ft/s;
 - (3) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level;
 - (4) You must select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish if the Director determines that:
 - (i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or
 - (ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the cooling water intake structure; or
 - (iii) Based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(2) and (5) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern;
 - (5) You must select and implement design and construction technologies or operational measures for minimizing entrainment of entrainable life stages of fish and shellfish;
 - (6) You must submit the applicable application information required in 40 CFR 122.21(r) and § 125.136(b). If you are a fixed facility you must submit the information required in 40 CFR 122.21(r)(2) (except (r)(2)(iv)), (3), and (4) and § 125.136(b) of this subpart as part of your application. If you are a not a fixed facility, you must only submit the information required in 40 CFR 122.21(r)(2)(iv), (r)(3) (except (r)(3)(ii)) and § 125.136(b) as part of your application.
 - (7) You must implement the monitoring requirements specified in § 125.137; and
 - (8) You must implement the recordkeeping requirements specified in § 125.138.
- (c) **Track II requirements for new offshore oil and gas extraction facilities.** The owner or operator of a new offshore oil and gas extraction facility that is a fixed facility and chooses to comply under Track II must comply with the following requirements:

- (1) You must demonstrate to the Director that the technologies employed will reduce the level of adverse environmental impact from your cooling water intake structures to a comparable level to that which you would achieve were you to implement the applicable requirements of paragraph (b)(2) and, if your facility is a fixed facility without a sea chest, also paragraph (b)(5) of this section. This demonstration must include a showing that the impacts to fish and shellfish, including important forage and predator species, will be comparable to those which would result if you were to implement the requirements of paragraph (b)(2) and, if your facility is a fixed facility without a sea chest, also paragraph (b)(5) of this section. In identifying such species, the Director may consider information provided by any fishery management agency(ies) along with data and information from other sources;
 - (2) For cooling water intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level;
 - (3) You must submit the applicable information required in 40 CFR 122.21(r)(2) (except (r)(2)(iv)), (3) and (4) and § 125.136(c);
 - (4) You must implement the monitoring requirements specified in § 125.137;
 - (5) You must implement the record-keeping requirements specified in § 125.138.
- (d) You must comply with any more stringent requirements relating to the location, design, construction, and capacity of a cooling water intake structure or monitoring requirements at a new offshore oil and gas extraction facility that the Director deems are reasonably necessary to comply with any provision of federal or state law, including compliance with applicable state water quality standards (including designated uses, criteria, and antidegradation requirements).

§ 125.135 May alternative requirements be authorized?

- (a) Any interested person may request that alternative requirements less stringent than those specified in § 125.134(a) through (d) be imposed in the permit. The Director may establish alternative requirements less stringent than the requirements of § 125.134(a) through (d) only if:
- (1) There is an applicable requirement under § 125.134(a) through (d);
 - (2) The Director determines that data specific to the facility indicate that compliance with the requirement at issue would result in compliance costs wholly out of proportion to the costs EPA considered in establishing the requirement at issue or would result in significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on energy markets;
 - (3) The alternative requirement requested is no less stringent than justified by the wholly out of proportion cost or the significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on energy markets; and
 - (4) The alternative requirement will ensure compliance with other applicable provisions of the Clean Water Act and any applicable requirement of federal or state law.
- (b) The burden is on the person requesting the alternative requirement to demonstrate that alternative requirements should be authorized.

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

- (a)
- (1) As an owner or operator of a new offshore oil and gas extraction facility, you must submit to the Director a statement that you intend to comply with either:
 - (i) The Track I requirements for new offshore oil and gas extraction facilities in § 125.134(b); or
 - (ii) If you are a fixed facility, you may choose to comply with the Track II requirements in § 125.134(c).
 - (2) You must also submit the application information required by 40 CFR 122.21(r) and the information required in either paragraph (b) of this section for Track I or, if you are a fixed facility that chooses to comply under Track II, paragraph (c) of this section when you apply for a new or reissued NPDES permit in accordance with 40 CFR 122.21.

- (b) **Track I application requirements.** To demonstrate compliance with Track I requirements in § 125.134(b), you must collect and submit to the Director the information in paragraphs (b)(1) through (3) of this section.
- (1) **Velocity information.** You must submit the following information to the Director to demonstrate that you are complying with the requirement to meet a maximum through-screen design intake velocity of no more than 0.5 ft/s at each cooling water intake structure as required in § 125.134(b)(2):
- (i) A narrative description of the design, structure, equipment, and operation used to meet the velocity requirement; and
 - (ii) Design calculations showing that the velocity requirement will be met at minimum ambient source water surface elevations (based on best professional judgment using available hydrological data) and maximum head loss across the screens or other device.
- (2) **Source waterbody flow information.** If you are a fixed facility and your cooling water intake structure is located in an estuary or tidal river, you must provide the mean low water tidal excursion distance and any supporting documentation and engineering calculations to show that your cooling water intake structure facility meets the flow requirements in § 125.134(b)(3).
- (3) **Design and Construction Technology Plan.** To comply with § 125.134(b)(4) and/or (5), if applicable, you must submit to the Director the following information in a Design and Construction Technology Plan:
- (i) If the Director determines that additional impingement requirements should be included in your permit:
 - (A) Information to demonstrate whether or not you meet the criteria in § 125.134(b)(4);
 - (B) Delineation of the hydraulic zone of influence for your cooling water intake structure;
 - (ii) New offshore oil and gas extraction facilities required to install design and construction technologies and/or operational measures must develop a plan explaining the technologies and measures you have selected. (Examples of appropriate technologies include, but are not limited to, increased opening to cooling water intake structure to decrease design intake velocity, wedgewire screens, fixed screens, velocity caps, location of cooling water intake opening in waterbody, etc. Examples of appropriate operational measures include, but are not limited to, seasonal shutdowns or reductions in flow, continuous operations of screens, etc.) The plan must contain the following information, if applicable:
 - (A) A narrative description of the design and operation of the design and construction technologies, including fish-handling and return systems, that you will use to maximize the survival of those species expected to be most susceptible to impingement. Provide species-specific information that demonstrates the efficacy of the technology;
 - (B) To demonstrate compliance with § 125.134(b)(5), if applicable, a narrative description of the design and operation of the design and construction technologies that you will use to minimize entrainment of those species expected to be the most susceptible to entrainment. Provide species-specific information that demonstrates the efficacy of the technology; and
 - (C) Design calculations, drawings, and estimates to support the descriptions provided in paragraphs (b)(3)(ii) (A) and (B) of this section.
- (c) **Application requirements for Track II.** If you are a fixed facility and have chosen to comply with the requirements of Track II in § 125.134(c) you must collect and submit the following information:
- (1) **Source waterbody flow information.** If your cooling water intake structure is located in an estuary or tidal river, you must provide the mean low water tidal excursion distance and any supporting documentation and engineering calculations to show that your cooling water intake structure facility meets the flow requirements in § 125.134(c) (2);
- (2) **Track II Comprehensive Demonstration Study.** You must perform and submit the results of a Comprehensive Demonstration Study (Study). This information is required to characterize the source water baseline in the vicinity of the cooling water intake structure(s), characterize operation of the cooling water intake(s), and to confirm that the technology(ies) proposed and/or implemented at your cooling water intake structure reduce the impacts to fish and shellfish to levels comparable to those you would achieve were you to implement the applicable requirements in § 125.134(b).
- (i) To meet the “comparable level” requirement, you must demonstrate that:
 - (A) You have reduced impingement mortality of all life stages of fish and shellfish to 90 percent or greater of the reduction that would be achieved through the applicable requirements in § 125.134(b)(2); and

- (B) If you are a facility without sea chests, you have minimized entrainment of entrainable life stages of fish and shellfish to 90 percent or greater of the reduction that would have been achieved through the applicable requirements in § 125.134(b)(5);
- (ii) You must develop and submit a plan to the Director containing a proposal for how information will be collected to support the study. The plan must include:
- (A) A description of the proposed and/or implemented technology(ies) to be evaluated in the Study;
- (B) A list and description of any historical studies characterizing the physical and biological conditions in the vicinity of the proposed or actual intakes and their relevancy to the proposed Study. If you propose to rely on existing source water body data, it must be no more than 5 years old, you must demonstrate that the existing data are sufficient to develop a scientifically valid estimate of potential impingement mortality and (if applicable) entrainment impacts, and provide documentation showing that the data were collected using appropriate quality assurance/quality control procedures;
- (C) Any public participation or consultation with Federal or State agencies undertaken in developing the plan; and
- (D) A sampling plan for data that will be collected using actual field studies in the source water body. The sampling plan must document all methods and quality assurance procedures for sampling and data analysis. The sampling and data analysis methods you propose must be appropriate for a quantitative survey and based on consideration of methods used in other studies performed in the source water body. The sampling plan must include a description of the study area (including the area of influence of the cooling water intake structure and at least 100 meters beyond); taxonomic identification of the sampled or evaluated biological assemblages (including all life stages of fish and shellfish); and sampling and data analysis methods; and
- (iii) You must submit documentation of the results of the Study to the Director. Documentation of the results of the Study must include:
- (A) **Source Water Biological Study.** The Source Water Biological Study must include:
- (1) A taxonomic identification and characterization of aquatic biological resources including: A summary of historical and contemporary aquatic biological resources; determination and description of the target populations of concern (those species of fish and shellfish and all life stages that are most susceptible to impingement and entrainment); and a description of the abundance and temporal/spatial characterization of the target populations based on the collection of multiple years of data to capture the seasonal and daily activities (e.g., spawning, feeding and water column migration) of all life stages of fish and shellfish found in the vicinity of the cooling water intake structure;
- (2) An identification of all threatened or endangered species that might be susceptible to impingement and entrainment by the proposed cooling water intake structure(s); and
- (3) A description of additional chemical, water quality, and other anthropogenic stresses on the source waterbody.
- (B) **Evaluation of potential cooling water intake structure effects.** This evaluation must include:
- (1) Calculations of the reduction in impingement mortality and, (if applicable), entrainment of all life stages of fish and shellfish that would need to be achieved by the technologies you have selected to implement to meet requirements under Track II. To do this, you must determine the reduction in impingement mortality and entrainment that would be achieved by implementing the requirements of § 125.134(b)(2) and, for facilities without sea chests, § 125.134(b)(5) of Track I at your site.
- (2) An engineering estimate of efficacy for the proposed and/or implemented technologies used to minimize impingement mortality and (if applicable) entrainment of all life stages of fish and shellfish and maximize survival of impinged life stages of fish and shellfish. You must demonstrate that the technologies reduce impingement mortality and (if applicable) entrainment of all life stages of fish and shellfish to a comparable level to that which you would achieve were you to implement the requirements in § 125.134(b)(2) and, for facilities without sea chests, § 125.134(b)(5) of Track I. The efficacy projection must include a site-specific evaluation of technology(ies) suitability for reducing impingement mortality and (if applicable) entrainment based on the results of the Source

Water Biological Study in paragraph (c)(2)(iii)(A) of this section. Efficacy estimates may be determined based on case studies that have been conducted in the vicinity of the cooling water intake structure and/or site-specific technology prototype studies.

- (C) **Verification monitoring plan.** You must include in the Study a plan to conduct, at a minimum, two years of monitoring to verify the full-scale performance of the proposed or implemented technologies and/or operational measures. The verification study must begin at the start of operations of the cooling water intake structure and continue for a sufficient period of time to demonstrate that the facility is reducing the level of impingement mortality and (if applicable) entrainment to the level documented in paragraph (c)(2)(iii)(B) of this section. The plan must describe the frequency of monitoring and the parameters to be monitored. The Director will use the verification monitoring to confirm that you are meeting the level of impingement mortality and entrainment reduction required in § 125.134(c), and that the operation of the technology has been optimized.

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

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

(a) **Biological monitoring.**

(1)

- (i) Fixed facilities without sea chests that choose to comply with the Track I requirements in § 125.134(b)(1)(i) must monitor for entrainment. These facilities are not required to monitor for impingement, unless the Director determines that the information would be necessary to evaluate the need for or compliance with additional requirements in accordance with § 125.134(b)(4) or more stringent requirements in accordance with § 125.134(d).
 - (ii) Fixed facilities with sea chests that choose to comply with Track I requirements are not required to perform biological monitoring unless the Director determines that the information would be necessary to evaluate the need for or compliance with additional requirements in accordance with § 125.134(b)(4) or more stringent requirements in accordance with § 125.134(d).
 - (iii) Facilities that are not fixed facilities are not required to perform biological monitoring unless the Director determines that the information would be necessary to evaluate the need for or compliance with additional requirements in accordance with § 125.134(b)(4) or more stringent requirements in accordance with § 125.134(d).
 - (iv) Fixed facilities with sea chests that choose to comply with Track II requirements in accordance with § 125.134(c), must monitor for impingement only. Fixed facilities without sea chests that choose to comply with Track II requirements, must monitor for both impingement and entrainment.
- (2) Monitoring must characterize the impingement rates and (if applicable) entrainment rates) of commercial, recreational, and forage base fish and shellfish species identified in the Source Water Baseline Biological Characterization data required by 40 CFR 122.21(r)(4), identified in the Comprehensive Demonstration Study required by § 125.136(c)(2), or as specified by the Director.
- (3) The monitoring methods used must be consistent with those used for the Source Water Baseline Biological Characterization data required in 40 CFR 122.21(r)(4), those used by the Comprehensive Demonstration Study required by § 125.136(c)(2), or as specified by the Director. You must follow the monitoring frequencies identified below for at least two (2) years after the initial permit issuance. After that time, the Director may approve a request for less frequent sampling in the remaining years of the permit term and when the permit is reissued, if supporting data show that less frequent monitoring would still allow for the detection of any seasonal variations in the species and numbers of individuals that are impinged or entrained.
- (4) **Impingement sampling.** You must collect samples to monitor impingement rates (simple enumeration) for each species over a 24-hour period and no less than once per month when the cooling water intake structure is in operation.
- (5) **Entrainment sampling.** If your facility is subject to the requirements of § 125.134(b)(1)(i), or if your facility is subject to § 125.134(c) and is a fixed facility without a sea chest, you must collect samples to monitor entrainment rates (simple enumeration) for each species over a 24-hour period and no less than biweekly during the primary period of

reproduction, larval recruitment, and peak abundance identified during the Source Water Baseline Biological Characterization required by 40 CFR 122.21(r)(4) or the Comprehensive Demonstration Study required in § 125.136(c)(2). You must collect samples only when the cooling water intake structure is in operation.

- (b) **Velocity monitoring.** If your facility uses a surface intake screen systems, you must monitor head loss across the screens and correlate the measured value with the design intake velocity. The head loss across the intake screen must be measured at the minimum ambient source water surface elevation (best professional judgment based on available hydrological data). The maximum head loss across the screen for each cooling water intake structure must be used to determine compliance with the velocity requirement in § 125.134(b)(2). If your facility uses devices other than surface intake screens, you must monitor velocity at the point of entry through the device. You must monitor head loss or velocity during initial facility startup, and thereafter, at the frequency specified in your NPDES permit, but no less than once per quarter.
- (c) **Visual or remote inspections.** You must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation. You must conduct visual inspections at least weekly to ensure that any design and construction technologies required in § 125.134(b)(4), (b)(5), (c), and/or
- (d) are maintained and operated to ensure that they will continue to function as designed. Alternatively, you must inspect via remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed.

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

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

- (a) You must keep records of all the data used to complete the permit application and show compliance with the requirements, any supplemental information developed under § 125.136, and any compliance monitoring data submitted under § 125.137, for a period of at least three (3) years from the date of permit issuance. The Director may require that these records be kept for a longer period.
- (b) You must provide the following to the Director in a yearly status report:
 - (1) For fixed facilities, biological monitoring records for each cooling water intake structure as required by § 125.137(a);
 - (2) Velocity and head loss monitoring records for each cooling water intake structure as required by § 125.137(b); and
 - (3) Records of visual or remote inspections as required in § 125.137(c).

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

- (a) **Permit application.** As the Director, you must review materials submitted by the applicant under 40 CFR 122.21(r), § 125.135, and § 125.136 at the time of the initial permit application and before each permit renewal or reissuance.
 - (1) After receiving the initial permit application from the owner or operator of a new offshore oil and gas extraction facility, the Director must determine applicable standards in § 125.134 or § 125.135 to apply to the new offshore oil and gas extraction facility. In addition, the Director must review materials to determine compliance with the applicable standards.
 - (2) For each subsequent permit renewal, the Director must review the application materials and monitoring data to determine whether requirements, or additional requirements, for design and construction technologies or operational measures should be included in the permit.
 - (3) For Track II facilities, the Director may review the information collection proposal plan required by § 125.136(c)(2) (ii). The facility may initiate sampling and data collection activities prior to receiving comment from the Director.
- (b) **Permitting requirements.** Section 316(b) requirements are implemented for a facility through an NPDES permit. As the Director, you must determine, based on the information submitted by the new offshore oil and gas extraction facility in its permit application, the appropriate requirements and conditions to include in the permit based on the track (Track I or Track II), or alternative requirements in accordance with § 125.135, the new offshore oil and gas extraction facility has chosen to comply with. The following requirements must be included in each permit:
 - (1) **Cooling water intake structure requirements.** At a minimum, the permit conditions must include the performance standards that implement the applicable requirements of § 125.134(b)(2), (3), (4) and (5); § 125.134(c)(1) and (2); or § 125.135.

- (i) For a facility that chooses Track I, you must review the Design and Construction Technology Plan required in § 125.136(b)(3) to evaluate the suitability and feasibility of the technology proposed to minimize impingement mortality and (if applicable) entrainment of all life stages of fish and shellfish. In the first permit issued, you must include a condition requiring the facility to reduce impingement mortality and/or entrainment commensurate with the implementation of the technologies in the permit. Under subsequent permits, the Director must review the performance of the technologies implemented and require additional or different design and construction technologies, if needed to minimize impingement mortality and/or entrainment of all life stages of fish and shellfish. In addition, you must consider whether more stringent conditions are reasonably necessary in accordance with § 125.134(d).
 - (ii) For a fixed facility that chooses Track II, you must review the information submitted with the Comprehensive Demonstration Study information required in § 125.136(c)(2), evaluate the suitability of the proposed design and construction technology and/or operational measures to determine whether they will reduce both impingement mortality and/or entrainment of all life stages of fish and shellfish to 90 percent or greater of the reduction that could be achieved through Track I. In addition, you must review the Verification Monitoring Plan in § 125.136(c)(2)(iii)(C) and require that the proposed monitoring begin at the start of operations of the cooling water intake structure and continue for a sufficient period of time to demonstrate that the technologies and operational measures meet the requirements in § 125.134(c)(1). Under subsequent permits, the Director must review the performance of the additional and /or different technologies or measures used and determine that they reduce the level of adverse environmental impact from the cooling water intake structures to a comparable level that the facility would achieve were it to implement the requirements of § 125.134(b)(2) and, if applicable, § 125.134(b)(5).
 - (iii) If a facility requests alternative requirements in accordance with § 125.135, you must determine if data specific to the facility meet the requirements in § 125.135(a) and include in the permit requirements that are no less stringent than justified by the wholly out of proportion cost or the significant adverse impacts on local water resources other than impingement or entrainment, or significant adverse impacts on energy markets.
- (2) **Monitoring conditions.** At a minimum, the permit must require the permittee to perform the monitoring required in § 125.137. You may modify the monitoring program when the permit is reissued and during the term of the permit based on changes in physical or biological conditions in the vicinity of the cooling water intake structure. The Director may require continued monitoring based on the results of monitoring done pursuant to the Verification Monitoring Plan in § 125.136(c)(2)(iii)(C).
- (3) **Record keeping and reporting.** At a minimum, the permit must require the permittee to report and keep records as required by § 125.138.