Chapter 173-221A WAC
WASTEWATER DISCHARGE STANDARDS AND EFFLUENT LIMITATIONS

WAC

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WAC 173-221A-010 Purpose and scope. This chapter implements chapters 43.21A, 90.48, 90.52, and 90.54 RCW by setting minimum discharge standards which represent "known, available, and reasonable methods" of prevention, control, and treatment for industrial wastewater facilities that discharge to waters of the state. This chapter supplements WAC 173-216-110, 173-218-100, and 173-220-130.

[Statutory Authority: Chapter 90.48 RCW. 90-14-078 (Order 90-11), § 173-221A-010, filed 7/3/90, effective 8/3/90.]

WAC 173-221A-020 Policy. Waters of the state shall be of the high quality. Regardless of the quality of the waters of the state, all wastes and other materials and substances proposed for entry into said waters shall be provided with all known, available, and reasonable methods of treatment prior to entry. Notwithstanding that standards of quality established for waters of the state would not be violated, wastes and other materials and substances shall not be allowed to enter such waters which will reduce the existing quality thereof, except in those situations where it is clear that overriding considerations of the public interest will be served.

[Statutory Authority: Chapter 90.48 RCW. 90-14-078 (Order 90-11), § 173-221A-020, filed 7/3/90, effective 8/3/90.]

WAC 173-221A-030 Definitions. As used in this chapter, unless the context indicates otherwise:

"Department" means the department of ecology.

"Director" means the director of the department of ecology, or designee.

"General NPDES permit" means a permit designed to cover multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

"Individual NPDES permit" means a permit for a single point source or a single facility.

"Marine finfish rearing facilities" means those private and public facilities located within the salt water of the state where finfish are fed, nurtured, held, maintained, or reared to the size of release or for market sale.

"NPDES" means National Pollutant Discharge Elimination System.

"Permit or wastewater discharge permit" means an authorization, license, or equivalent control document issued by the department to implement chapters 173-220, 173-226, and/or 173-216 WAC.

"Sediment quality standards" means the standards set forth in chapter 173-204 WAC.

"Upland finfish facility" means those facilities not located within waters of the state where finfish are hatched, fed, nurtured, held, maintained, or reared to reach the size of release or for market sale. This includes fish hatcheries, rearing ponds, spawning channels, and other similarly constructed or fabricated public or private facility.

"Wastewater" means the water or liquid carried waste. These wastes may result from any process or activity, including but not limited to, of industry, manufacturer, trade, business, development of any natural resource, or from animal operations such as feed lots, poultry houses, dairies, or fish rearing operations. The term also includes contaminated storm water and leachate from solid waste facilities.

"Water quality standards" means as applicable: Chapter 173-201A WAC for surface waters, chapter 173-200 WAC for groundwaters, and chapter 173-204 WAC for sediment.

"Waters of the state" includes those waters as defined as "waters of the United States" in 40 CFR 122.2 within the geographic boundaries of Washington state and "waters of the state" as defined in RCW 90.48.020.

"40 CFR" means Title 40 of the Code of Federal Regulations, as presently promulgated and subsequently amended or repromulgated.

[Statutory Authority: RCW 90.48.220. 95-22-079 (Order 93-26), § 173-221A-030, filed 10/31/95, effective 12/1/95. Statutory Authority: Chapter 90.48 RCW. 90-14-078 (Order 90-11), § 173-221A-030, filed 7/3/90, effective 8/3/90.]

WAC 173-221A-100 Upland finfish facilities. (1) **Which types of upland finfish facilities need a wastewater discharge permit?**

(a) A permit is required for:

(i) All facilities which produce more than 20,000 net pounds of finfish a year; or

(ii) Feeds more than 5,000 pounds of fish food during any calendar month; or

(iii) Is designated as a significant contributor of pollution by the department in accordance with 40 CFR 122.24.

(b) Facilities which do not require a permit under (a) of this subsection are conditionally exempt from the requirement to obtain a wastewater discharge permit provided they comply with subsections (2) through (6) of this section.

(2) **Time of compliance.** Each upland finfish rearing facility which requires a wastewater discharge permit in accordance with subsection (1) of this section shall submit a completed application form to the department at least one hundred eighty days in advance of the date when permit coverage is deemed necessary.

(3) **Prevention, control, and treatment.** Each upland finfish facility shall provide treatment prior to discharging to

waters of the state regardless of receiving water quality. The minimum acceptable technology-based treatment requirements for upland finfish facilities required to obtain permits including general wastewater discharge permits are:

(a) For facilities that use a vacuum cleaning system, standpipe bottom-drain system or other method to remove solids from the water, raceways or ponds, with treatment in a separate settling basin or treatment system:

(i) All facilities utilizing off-line settling shall incorporate into the pond or raceway design methods to collect settleable solids. Methods such as screened settling zones in the downstream end at raceways shall be used to collect settleable solids prior to periodic removal to off-line settling basins.

(ii) The settling basin shall be designed to minimize short-circuiting and to provide a minimum total suspended solids average monthly percent removal of 85% and an average monthly settleable solids percent removal of 90%.

(iii) Turbulent flow shall be minimized within the cleaning system to avoid homogenization or solids.

(iv) Rearing of fish within the settling basin is not permitted.

(b) For facilities that provide in-line settling for the entire effluent;

(i) The settling basin shall be designed to minimize hydraulic short-circuiting.

(ii) The settling basin shall be designed to provide at least a twenty year sludge decomposition and storage capacity unless provisions are made for periodic sludge removal without interruption in treatment.

(iii) Rearing of fish within the settling basin is prohibited.

(c) For facilities with rearing ponds only, no other form of effluent treatment shall be required, provided the rearing pond has a minimum hydraulic retention time of two hours or more. Rearing vessels with less than two hours hydraulic retention time may be approved by the department in writing without additional treatment provided the applicant can demonstrate to the department, in advance, the ability to continuously comply with effluent limits established in subsection (4)(a) of this section.

(d) Each upland finfish facility that begins construction after September 1, 1990, or expands production by fifty percent over the production on the effective date of this rule shall either:

(i) Line all settling basins or otherwise ensure that the static (i.e., without inflow) seepage rate through the settling basin bottom and sides shall not be greater than a water surface drop of 0.10 inch per day; or

(ii) Demonstrate to the department through hydrogeologic investigation and/or groundwater monitoring that the operation of the facility will not have an adverse impact upon groundwater quality.

(e) Notwithstanding the treatment requirements of this subsection, more stringent or additional conditions may be required by the department as necessary on a case-by-case basis to mitigate adverse water quality impacts or meet water quality standards, groundwater standards, sediment standards or other applicable requirements of federal or state law.

(4) **Effluent standards.** Wastewater from all upland finfish facilities regardless of size shall meet the following effluent discharge standards.

(a) Facility discharges.

(i) The instantaneous maximum total suspended solids concentration in the effluent at the point of discharge to the receiving environment shall not exceed 15 milligrams per liter of effluent.

(ii) The average total suspended solids concentration in the effluent at the point of discharge to the receiving environment shall not exceed 5 milligrams per liter of effluent.

(iii) The average settleable solids concentration in the effluent at the point of discharge to the receiving environment shall not exceed 0.1 milliliter per liter of effluent.

(iv) Effluent limitations shall apply as net values provided the criteria contained in 40 CFR 122.45 (net gross allowance) are met.

(b) Off-line settling basin effluent.

(i) The instantaneous maximum total suspended solids concentration shall not exceed 100 milligrams per liter of effluent.

(ii) The instantaneous maximum settleable solids concentration in off-line settling basin effluent shall not exceed 1.0 milliliter per liter of effluent.

(c) Discharges during rearing pond drawdown for fish release shall meet the following discharge standards. Pond drawdown for purposes other than fish release shall meet the discharger standards in (a) of this subsection.

(i) The instantaneous maximum total suspended solids concentration in the rearing pond effluent shall not exceed 100 milligrams per liter.

(ii) The instantaneous maximum settleable solids concentration in the rearing pond effluent shall not exceed 1.0 milliliter per liter.

(d) Test procedures. All sampling and analytical methods used to determine compliance with standards specified in this subsection shall, unless otherwise approved by the department, conform to the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.

(e) Notwithstanding the numerical discharge standards within this subsection, each upland finfish facility shall be operated in the most efficient manner possible. Additional effluent limits and/or more stringent effluent limits may be required as necessary on a case-by-case basis to meet water quality standards, groundwater quality standards, sediment quality standards, or other applicable requirements of federal or state law.

(5) **General requirements.** The following practices shall be applicable to all upland finfish facilities.

(a) Sand, silt, mud, solids, sludges, filter backwash, debris, or other pollutants deposited or removed in the course of treatment or control of water supply and wastewaters shall be disposed of in a manner so as to prevent such materials from entering waters of the state.

(b) Discharging untreated cleaning wastes (e.g., obtained from a vacuum or standpipe bottom drain system) to waters of the state is prohibited.

(c) Sweeping or intentionally discharging accumulated solids from raceways or ponds to waters of the state without prior treatment is prohibited.

(d) Practices such as removing dam boards in raceways or ponds, that allow accumulated solids to discharge to waters of the state are prohibited.

(e) The discharge of any drugs or chemicals in toxic amounts or in violation of water quality standards to waters of the state is prohibited.

(f) Disease control chemical use practices. The following requirements only apply to those drugs and chemicals included in feed or administered by a bath or dip treatment which results or may result in those materials being discharged to waters of the state. These requirements do not apply to drugs and chemicals administered by injections or by dip treatments which results in no discharge to waters of the state.

(i) Disease control chemicals and drugs approved for hatchery use by the United States Food and Drug Administration (USFDA) or the United States Environmental Protection Agency (USEPA) may be used.

(ii) USFDA approved Investigational New Animal Drugs (INADs) may also be used at a facility, provided the conditions detailed in a facility's INAD permit application are met.

(iii) All disease control drug and chemical use must be done in conformance with product label instructions, approved INAD protocols, or be administered by or under the supervision of a licensed veterinarian.

(iv) Disease control drugs and chemicals which are not used in accordance with product label instructions, or under USFDA approved INAD protocols must:

(A) Be administered by or under the supervision of a licensed veterinarian; and

(B) Be approved in advance by the department.

(v) The department may require disease control drug and chemical use reports from each facility.

(g) Fish mortalities, kill spawning, processing wastes, and any leachate from these materials shall be disposed of in a manner so as to prevent such materials from entering the waters of the state.

(h) Right of entry.

(i) Authorized representatives of the department, upon presentation of identification shall be allowed to:

(A) Enter in or upon the facility at all reasonable times;

(B) Have access to and copy at all reasonable times any records relative to information that must be kept or provided the department under the terms of, as applicable: The conditional exemption or wastewater discharge permit;

(C) Inspect, investigate, and photograph at all reasonable times any production, collection, treatment, pollution management, monitoring, or discharge equipment or facilities, or any conditions relating to pollution or possible pollution of any waters of the state;

(D) Sample and make tests at all reasonable times; and

(E) The term "reasonable times" shall include normal business hours, hours during which production, prevention, control, or treatment occurs or times when the department reasonably suspects a violation of this chapter is or may be occurring.

(6) **Receiving water quality studies.** Receiving water quality studies shall be required as follows for each upland finfish facility which begins construction after September 1, 1990, or expands production by fifty percent over the production on the effective date of this rule. Existing facilities may be required to do receiving water studies on a case-by-case basis. Dilution shall be evaluated by the department using total facility effluent at maximum production at the lowest seven-day average receiving stream flow with a 10-year recurrence interval (7Q10).

(a) For facilities with a discharge of one part upland finfish facility effluent to ten parts or more of receiving water, receiving water studies are not required unless significant data indicates water quality standards would be violated.

(b) For facilities with an effluent dilution of between one part upland finfish facility effluent to three parts receiving water and one part effluent to ten parts receiving water, receiving water studies may be required by the department. The department shall provide the upland finfish operator or permit applicant with written documentation on the need for receiving water studies upon request. Factors to be considered by the department in determining the need for and objectives of special receiving water studies may include, but are limited to, the following:

(i) The water quality classification of the receiving water of the state;

(ii) The potential water quality impacts of surrounding land use practices and/or existing and proposed discharges including the proposed upland finfish hatching and rearing facility;

(iii) The likelihood that the proposed discharge will have an effect on existing water quality and/or present or future beneficial uses;

(iv) The proximity of the discharge to a quiescent water body such as a lake or a reservoir;

(v) On-site inspection;

(vi) The potential of the discharge to have an adverse impact on receiving water quality such that water quality standards would be violated; and

(vii) Possible beneficial impacts of upland finfish discharges on existing water quality such as flow augmentation.

(c) For facilities with an effluent dilution of one part upland finfish facility effluent to three parts or less of receiving waters, receiving water quality studies will generally be required for new facilities and may be required on a case-by-case basis for existing facilities.

(d) Receiving water quality studies content and scope shall include, as required by the department an analysis of the proposed facilities discharge and any impacts upon the receiving water of the state, including, but not limited to, the following:

(i) Identification of existing and potential beneficial uses of the receiving water of the state and an evaluation of the impact on those beneficial uses of the proposed discharge;

(ii) Hydraulic impacts;

(iii) The impacts of both nitrogen and phosphorous compounds and the potential for eutrophication of the receiving waters;

(iv) The use of chemicals and medications within the facility, their toxicity, and the impacts on the receiving waters;

(v) The effect of the facilities on receiving water temperature and dissolved oxygen concentrations; and

(vi) The potential for impacting any specified identified water use.

(vii) Possible beneficial impact of upland finfish discharges on existing water quality such as flow augmentation.

[Statutory Authority: RCW 90.48.220. 95-22-079 (Order 93-26), § 173-221A-100, filed 10/31/95, effective 12/1/95. Statutory Authority: Chapter 90.48 RCW. 90-14-078 (Order 90-11), § 173-221A-100, filed 7/3/90, effective 8/3/90.]

WAC 173-221A-110 Marine finfish rearing facilities. (1) This rule sets waste discharge standards for finfish rearing facilities located within marine waters as required by RCW 90.48.220. Net-pens, floating raceways, closed bag, and barge systems are some examples of finfish rearing facilities covered by this section.

(2) **Which types of marine finfish rearing facilities need a wastewater discharge permit?**

(a) A permit is required for:

(i) All facilities which produce more than 20,000 net pounds of finfish a year; or

(ii) Feeds more than 5,000 pounds of fish food during any calendar month; or

(iii) Is designated as a significant contributor of pollution by the department in accordance with 40 CFR 122.24.

(b) Facilities which do not require a permit under (a) of this subsection are conditionally exempt from the requirement to obtain a state waste discharge permit under chapter 173-216 WAC provided they comply with subsections (3) through (5) of this section.

(3) **Time of compliance.**

(a) Each marine finfish rearing facility which requires a wastewater discharge permit in accordance with subsection (2) of this section shall submit a completed application form to the department at least one hundred eighty days in advance of the date when permit coverage is deemed necessary.

(b) Existing unpermitted marine finfish rearing facilities which require a waste discharge permit in accordance with subsection (2) of this section shall file a completed application form with the department by January 31, 1996.

(4) **Requirements applicable to all marine finfish rearing facilities.** All marine finfish rearing facilities regardless of size, shall be operated so as to:

(a) Comply with all applicable state water quality standards and sediment quality standards.

(b) Comply with the following general requirements meant to reduce pollutants in the effluent:

(i) Feeding practices. Fish food shall be dispersed in a manner which maximizes ingestion by the reared fish.

(ii) Disease control chemical use practices. The following requirements only apply to those drugs and chemicals included in feed or administered by a bath or dip treatment which results or may result in those materials being discharged to waters of the state. These requirements do not apply to drugs and chemicals administered by injections or by dip treatments which results in no discharge to waters of the state.

(A) Disease control chemicals and drugs approved for use by the United States Food and Drug Administration (USFDA) or the United States Environmental Protection Agency (USEPA) may be used.

(B) USFDA approved Investigational New Animal Drugs (INADs) may also be used at a facility, provided the conditions detailed in a facility's INAD permit application are met.

(C) All disease control drug and chemical use must be done in conformance with product label instructions, approved INAD protocols, or be administered by or under the supervision of a licensed veterinarian.

(D) Disease control drug and chemicals which are not used in accordance with product label instructions, or under USFDA approved INAD protocols must:

(I) Be administered by or under the supervision of a licensed veterinarian; and

(II) Be approved in advance by the department.

(E) The department may require disease control drug and chemical use reports from each facility.

(iii) Right of entry. Authorized representatives of the department, upon presentation of identification shall be allowed to:

(A) Enter in or upon the facility at all reasonable times;

(B) Have access to and copy at all reasonable times any records relative to information that must be kept or provided the department under the terms of, as applicable: The conditional exemption or wastewater discharge permit;

(C) Inspect, investigate, and photograph at all reasonable times any production, collection, treatment, pollution management, monitoring, or discharge equipment or facilities, or any conditions relating to pollution or possible pollution of any waters of the state;

(D) Sample and make tests at all reasonable times; and

(E) The term "reasonable times" shall include normal business hours, hours during which production, prevention, control, or treatment occurs or times when the department reasonably suspects a violation of this chapter is or may be occurring.

(iv) Operational conditions.

(A) Fish mortalities, harvest blood, and any leachate from these materials shall be stored and disposed of in a manner so as to prevent such materials from entering the waters of the state.

(B) Accumulated solids and attached marine growth contained within or on the finfish rearing units shall be disposed of in a manner which prevents, to the maximum extent practicable, these materials from entering or reentering waters of the state.

(C) Discharging accumulated solids and marine growth removed from the finfish rearing units into waters of the state without prior treatment is prohibited.

(D) Storage quantities of all necessary chemicals, petroleum products, and potentially toxic substances essential to the day-to-day operation of the facility shall be minimized. These products shall be kept in leak proof storage areas which provide secondary containment.

(c) Pollution prevention plan. All marine finfish rearing facilities shall develop a pollution prevention plan within six months of permit issuance. Facilities which do not require discharge permits shall prepare and implement a pollution prevention plan within a year of the adoption date of this rule, or when fish are introduced, whichever is later.

(i) The plan shall address: Operating, spill prevention, spill response, solid waste, and storm water discharge practices which prevent or minimize the release of pollutants from the facility to the waters of the state.

(ii) Each facility shall be operated in accordance with its plan along with any subsequent plan amendments or revisions.

(iii) A copy of the most current version of the plan shall be maintained at the facility and available to the department upon request.

(5) **Environmental studies.** The purpose of these studies shall be to determine the potential of the discharge from a marine finfish rearing facility to have an adverse impact on existing water quality and sediment quality.

(a) Environmental studies shall be required as necessary to determine compliance with applicable water quality standards for each new facility which begins construction after November 1, 1995, or for each permitted facility which expands production by fifty percent over the permitted production on the effective date of this rule. Permitted production means the production level authorized for a facility in a waste discharge permit issued pursuant to chapter 90.48 RCW or shoreline permit issued pursuant to chapter 90.58 RCW. Existing facilities may be required to do environmental studies on a case-by-case basis.

(b) Environmental monitoring and reporting programs will be required to ensure the discharge from a facility complies with state water quality standards and sediment management standards. The department may require environmental monitoring programs through the issuance of wastewater discharge permits, and/or through administrative orders.

[Statutory Authority: RCW 90.48.220. 95-22-079 (Order 93-26), § 173-221A-110, filed 10/31/95, effective 12/1/95.]

WAC 173-221A-150 Enforcement. This chapter shall be enforced through all legal, equitable, and other methods available to the department, including, but not limited to those described in chapter 90.48 RCW.

[Statutory Authority: Chapter 90.48 RCW. 90-14-078 (Order 90-11), § 173-221A-150, filed 7/3/90, effective 8/3/90.]