

1 Pollution Control Agency

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3 Adopted Permanent Rules Relating to Aquaculture Facilities

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5 Rules as Adopted

6 7050.0216 REQUIREMENTS FOR AQUACULTURE FACILITIES.

7 Subpart 1. Definitions. For the purposes of this part,  
8 the terms in items A to K J have the meanings given them.

9 A. "Aquaculture ~~therapeutic~~ therapeutics" means  
10 drugs, medications, or disease control chemicals that are  
11 approved for concentrated aquatic animal production facility use  
12 by the United States Food and Drug Administration or the United  
13 States Environmental Protection Agency.

14 B. "Aquatic animal production" means harvest of  
15 unprocessed aquatic animals, including mortalities, where the  
16 animals are fed fish food.

17 C. "Chemical additive" means an aquaculture  
18 therapeutic, growth-inducing compound, hormone, or algal control  
19 product that is added to a concentrated aquatic animal  
20 production facility.

21 D. "Cold water aquatic animals" means aquatic animals  
22 ~~included in, but not limited to,~~ the Salmonidae family of fish,  
23 such as trout and salmon.

24 E. "Concentrated aquatic animal production facility"  
25 means a hatchery, fish farm, or other facility that contains,  
26 grows, or holds aquatic animals as described in subitems (1) to  
27 ~~(3)~~ (4).

28 (1) Cold water aquatic animal facilities that  
29 produce more than 9,090 harvest weight kilograms (approximately  
30 20,000 pounds) of aquatic animals per year or feed more than  
31 2,272 kilograms (approximately 5,000 pounds) of food during the  
32 calendar month of maximum feeding.

33 (2) Warm and cool water aquatic animal facilities  
34 that produce more than 45,454 harvest weight kilograms  
35 (approximately 100,000 pounds) of aquatic animals per year.

1 (3) Case-by-case designation of concentrated  
 2 aquatic animal production facilities. The commissioner may  
 3 designate any warm, cool, or cold water aquatic animal  
 4 production facility as a concentrated aquatic animal facility  
 5 upon determining that it ~~is-a-significant-contributor-of~~  
 6 ~~pollution-to-the-waters-of-the-state~~ may cause a violation of an  
 7 applicable state or federal water quality rule or regulation.

8 In making this designation, the commissioner shall consider the  
 9 following factors:

10 (a) the location and quality of the  
 11 receiving waters;

12 (b) the holding, feeding, and production  
 13 capacities of the facility; and

14 (c) the quantity and nature of the  
 15 pollutants reaching waters of the state; ~~and~~

16 ~~(d)-other-relevant-factors.~~

17 A permit application is not required from a concentrated  
 18 aquatic animal production facility designated under this item  
 19 until the commissioner has conducted an on-site inspection of  
 20 the facility and has determined that the facility ~~should-and~~  
 21 ~~could~~ is required to be regulated under the permit program. A  
 22 permit will be required under this subitem only after the  
 23 facility has been given notice of the commissioner's  
 24 determination and an opportunity to request a hearing as  
 25 provided in parts 7000.1000 and 7001.0130.

26 (4) Harvest weight is considered the weight of  
 27 aquatic animal product which leaves a production facility, minus  
 28 the weight of aquatic animal product which enters the same  
 29 production facility.

30 F. "Continuous discharge" means a discharge that  
 31 occurs without interruption throughout the operating hours of  
 32 the facility, except for infrequent shutdowns for maintenance,  
 33 process changes, or other similar activities.

34 G. "Existing beneficial uses" means the uses that  
 35 have been made or may be reasonably anticipated to be made  
 36 during the time of the proposed operations of waters of the

1 state for domestic water supply, tourism and recreational  
 2 industries, transportation, industrial consumption, wellhead  
 3 protection, wildlife sustenance, wetland protection, fire  
 4 protection, fire prevention, assimilation of municipal and  
 5 industrial wastes and other wastes or other uses within this  
 6 state, and, at the discretion of the agency, any uses in another  
 7 state or interstate waters flowing through or originating in  
 8 this state.

9 H. "Fish food" means materials including ~~but not~~  
 10 ~~limited to commercial~~ processed feeds, grains and seeds,  
 11 plants, ~~forage fish, insects, crustaceans, worms,~~ plant wastes,  
 12 meat, and dead fish or other dead animal parts, but not  
 13 including living aquatic animals, for the purpose purposes of  
 14 sustaining growth, ~~repair,~~ repairing vital processes, and or  
 15 furnishing energy for aquatic animals present in the facility.

16 ~~F. "In-situ facility" means a concentrated aquatic~~  
 17 ~~animal production facility in which aquatic animals are reared~~  
 18 ~~in waters of the state. This includes net pens, net cages,~~  
 19 ~~floating raceways, barges, and other similarly constructed or~~  
 20 ~~fabricated public or private facilities.~~

21 ~~G. "On-land facility" means a concentrated aquatic~~  
 22 ~~animal production facility not located within waters of the~~  
 23 ~~state in which aquatic animals are reared. This includes fish~~  
 24 ~~hatcheries, rearing ponds, spawning channels, and other~~  
 25 ~~similarly constructed or fabricated public or private facilities.~~

26 K. I. "Recirculating flow" means wastewater, within a  
 27 concentrated aquatic animal production facility, which is  
 28 collected from aquatic animal rearing units, treated, and then  
 29 returned to aquatic animal rearing units for reuse.

30 J. "Warm and cool water aquatic animals" means all  
 31 other aquatic animals not included in the Salmonidae family of  
 32 fish ~~and include but are not limited to the Amerejuride,~~  
 33 ~~Centrarchidae, Cyprinidae, Percidae, and Ictaluridae families of~~  
 34 ~~fish, such as catfish, sunfish, minnows, and walleye.~~

35 Subp. 2. Permit required. No person may construct,  
 36 operate, or maintain a concentrated aquatic animal production

1 facility until the agency has issued a National Pollutant  
 2 Discharge Elimination System and State Disposal System  
 3 (NPDES/SDS) permit for the facility in accordance with chapter  
 4 7001. Production levels of multiple projects and multiple  
 5 stages of a single project that are connected actions or phased  
 6 actions will be considered in total under subpart 1, item E.

7 Subp. 3. Treatment technology discharge requirements. The  
 8 ~~discharge-limitations-in-items-A-to-D-are-established-based-on~~  
 9 ~~the-best-available-proven-technology, best-management-practices,~~  
 10 ~~and-water-treatment-practices-that-prevent-and-minimize~~  
 11 ~~degradation-of-waters-of-the-state-considering-economic-factors,~~  
 12 ~~availability, technical-feasibility, effectiveness, and~~  
 13 ~~environmental-impacts.~~

14 A. Collection and treatment. All concentrated  
 15 aquatic animal production facilities shall collect, remove,  
 16 treat, and properly dispose of unconsumed fish food and fish  
 17 wastes. ~~Mass-discharge-shall-be-determined-by-monitoring,~~  
 18 ~~testing, and-reporting-in-accordance-with-subpart-6, item-A.~~

19 B. ~~On-land-facilities.~~ ~~Any-person-discharging-from~~  
 20 ~~an-on-land-facility-shall-comply-with-the-following-limitations~~  
 21 ~~after-allowance-for-pollutant-removal-by-a-treatment-works:~~

Substance-or-Characteristic	Limiting-Concentration-or-Range
5-day-carbonaceous-biochemical oxygen-demand*	25-milligrams-per-liter
Fecal-coliform-group organisms***	200-organisms-per-100 milliliters
Total-suspended-solids*	30-milligrams-per-liter
Oil	Essentially-free-of-visible-oil
Phosphorus**	1-milligram-per-liter
pH-range	6.0-to-9.0
Toxic-or-corrosive-pollutants	Concentrations-of-toxic-or corrosive-pollutants-must-not cause-acute-toxicity-to-humans or-other-animals, or-plant life, directly-damage-real property, or-exceed-the-final acute-value-unless-the effluent-satisfies-the-whole effluent-toxicity-test-as follows:--If-a-whole-effluent- toxicity-test-performed-on-the effluent-results-in-less-than 50-percent-mortality-of-the

1 test-organisms, the effluent  
 2 will not be considered  
 3 acutely toxic unless the  
 4 commissioner finds that the  
 5 test species do not represent  
 6 sensitive organisms in the  
 7 affected surface water body  
 8 or the whole effluent test  
 9 was performed on a sample not  
 10 representative of the  
 11 effluent quality. -- The final  
 12 acute value and whole  
 13 effluent toxicity tests are  
 14 defined in part 7050.0218,  
 15 subpart 3, items 0 and FF,  
 16 respectively.

17  
 18 \*--The arithmetic mean for concentrations of five-day  
 19 carbonaceous biochemical oxygen demand for all discharges and of  
 20 total suspended solids for continuous discharges shall not  
 21 exceed the stated value in any calendar month. -- For  
 22 noncontinuous discharges, the arithmetic mean for concentration  
 23 of total suspended solids shall not exceed 45 milligrams per  
 24 liter in any calendar month.

25 \*\*--Where the discharge of effluent is directly to or  
 26 affects a lake or reservoir, phosphorus removal to one milligram  
 27 per liter shall be required. -- In addition, removal of nutrients  
 28 from all wastes shall be provided to the fullest practicable  
 29 extent wherever sources of nutrients are considered to be  
 30 actually or potentially detrimental to preservation or  
 31 enhancement of the designated water uses. -- Discharges required  
 32 to control nutrients by this subpart are subject to the variance  
 33 provisions of part 7050.0190.

34 \*\*\*--Disinfection of wastewater effluents to reduce the  
 35 levels of fecal coliform organisms to the stated value is  
 36 required from March 1 through October 31 for Class 2 waters and  
 37 May 1 through October 31 for Class 7 waters, except that where  
 38 the effluent is discharged 25 miles or less upstream of a water  
 39 intake supplying a potable water system, the reduction to the  
 40 stated value is required throughout the year. -- The stated value  
 41 must not be exceeded in any calendar month as determined by the  
 42 geometric mean of all samples collected in a given calendar  
 43 month. -- The application of the fecal coliform group organism  
 44 standards shall be limited to sewage or other effluents

1 containing admixtures of sewage and shall not apply to  
 2 industrial wastes except where the presence of sewage, fecal  
 3 coliform organisms, or viable pathogenic organisms is known or  
 4 reasonably certain. Analysis of samples for fecal coliform  
 5 group organisms by either the multiple tube fermentation or the  
 6 membrane filter technique is acceptable.

7 C. In situ facilities. A person discharging from an  
 8 in situ facility shall comply with the following limitations  
 9 after allowance for pollutant removal by a treatment works:

Substance or Characteristic	Limiting Concentration or Range
5-day carbonaceous biochemical oxygen demand*	25 milligrams per liter
Fecal coliform group organisms***	200 organisms per 100 milliliters
Total suspended solids*	30 milligrams per liter
Oil	Essentially free of visible oil
Phosphorus**	1 milligram per liter
pH range	6.0 to 9.0
Toxic or corrosive pollutants	Concentrations of toxic or corrosive pollutants must not cause acute toxicity to humans or other animals, or plant life, directly damage real property, or exceed the final acute value unless the effluent satisfies the whole effluent toxicity test as follows: If a whole effluent toxicity test performed on the effluent results in less than 50 percent mortality of the test organisms, the effluent will not be considered acutely toxic unless the commissioner finds that the test species do not represent sensitive organisms in the affected surface water body or the whole effluent test was performed on a sample not representative of the effluent quality. The final acute value and whole effluent toxicity tests are defined in part 7050.0218, subpart 3, items 0 and FF, respectively.

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\*--The arithmetic mean for concentrations of five-day carbonaceous biochemical oxygen demand for all discharges and of total suspended solids for continuous discharges shall not exceed the stated value in any calendar month. For

1 noncontinuous discharges, the arithmetic mean for concentration  
2 of total suspended solids shall not exceed 45 milligrams per  
3 liter in any calendar month.

4 \*\*Where the discharge of effluent is directly to or  
5 affects a lake or reservoir, phosphorus removal to one milligram  
6 per liter shall be required. In addition, removal of nutrients  
7 from all wastes shall be provided to the fullest practicable  
8 extent wherever sources of nutrients are considered to be  
9 actually or potentially detrimental to preservation or  
10 enhancement of the designated water uses. Discharges required  
11 to control nutrients by this subpart are subject to the variance  
12 provisions of part 7050.0190.

13 \*\*\*Disinfection of wastewater effluents to reduce the  
14 levels of fecal coliform organisms to the stated value is  
15 required from March 1 through October 31 for Class 2 waters and  
16 May 1 through October 31 for Class 7 waters, except that where  
17 the effluent is discharged 25 miles or less upstream of a water  
18 intake supplying a potable water system, the reduction to the  
19 stated value is required throughout the year. The stated value  
20 must not be exceeded in any calendar month as determined by the  
21 geometric mean of all samples collected in a given calendar  
22 month. The application of the fecal coliform group organism  
23 standards shall be limited to sewage or other effluents  
24 containing admixtures of sewage and shall not apply to  
25 industrial wastes except where the presence of sewage, fecal  
26 coliform organisms, or viable pathogenic organisms is known or  
27 reasonably certain. Analysis of samples for fecal coliform  
28 group organisms by either the multiple tube fermentation or the  
29 membrane filter technique is acceptable.

30 B. B. Discharge requirements. All concentrated  
31 aquatic animal production facilities that discharge industrial  
32 or other wastes to waters of the state shall comply with the  
33 requirements of part 7050.0212, subparts 1, 3, 4, 5, and 6.

34 C. Recirculating flow. The owner or operator of a  
35 recirculating flow in-situ or on-land facility may propose to  
36 the commissioner alternate concentration limits than those

1 ~~required-by-item-B-or-C~~ apply for a variance from the  
 2 requirements of item B in accordance with parts 7000.0700 and  
 3 7050.0190. The ~~proposat~~ variance application shall provide  
 4 detailed information on the following:

5 (1) treatment, collection, removal, and disposal  
 6 of wastes after wastewater flow leaves aquatic animal rearing  
 7 units and before the wastewater is returned for reuse to rearing  
 8 units;

9 (2) the rate of wastewater discharge flow  
 10 compared to the volume of water in the aquatic animal rearing  
 11 units;

12 (3) reduction in the mass discharge of pollutants  
 13 due to the design, operation, and maintenance of the  
 14 recirculating system; and

15 (4) reduction in water appropriation due to the  
 16 design, operation, and maintenance of the recirculating system.

17 ~~The commissioner may approve alternate concentration limits~~  
 18 ~~under this subpart based upon information related to subitems~~  
 19 ~~(1) to (4):~~

20 Subp. 4. **Additional requirements.** Except as expressly  
 21 excluded in this part, the construction, operation, and  
 22 maintenance of a concentrated aquatic animal production facility  
 23 shall comply with the requirements of parts 7050.0110  
 24 to 7050.0214 and 7050.0217 to 7050.0220~~7-if-applicable.~~

25 Subp. 5. **Interim reversible impacts.**

26 A. **Variance.** Upon application of the responsible  
 27 person or persons and in accordance with parts 7000.0700 and  
 28 7050.0190, the agency ~~in its discretion may~~ shall grant a  
 29 variance from subpart 3, item A or B, if the agency also finds  
 30 that:

31 (1) the construction, operation, and maintenance  
 32 of the facility will not impair the existing beneficial uses and  
 33 the level of water quality necessary to protect the existing  
 34 beneficial uses;

35 (2) the economic or social development of concern  
 36 will not occur due to the standards in subpart 3;



1 (3) allowing lower water quality is necessary to  
2 accommodate important economic or social development in the area  
3 in which the receiving waters are located;

4 (4) the baseline quality of the receiving waters  
5 has been established in accordance with item C;

6 (5) a closure plan for the facility has been  
7 ~~approved~~ submitted in accordance with item E;

8 (6) financial assurance for the facility has been  
9 established, ~~approved~~, and maintained in accordance with item F;  
10 and

11 (7) the applicant has ~~obtained~~ submitted a permit  
12 application for the facility for which the variance is sought in  
13 compliance with subpart 2;

14 (8) the applicant has submitted a completed  
15 variance application in accordance with item B; and

16 (9) the receiving waters will be restored to  
17 baseline quality within three years of initiation of closure.

18 However, no variances may be granted that would result in  
19 noncompliance with applicable federal rules, regulations, or  
20 standards for water quality.

21 B. Variance application. In addition to the  
22 requirements of part 7000.0700, subpart 2, the written  
23 application must contain:

24 (1) the baseline quality data of the receiving  
25 waters collected under ~~agency-approved~~ commissioner-approved  
26 protocol in accordance with item C;

27 (2) the ~~agency-approved~~ closure plan in  
28 accordance with item E; and

29 (3) an up-to-date closure cost estimate for the  
30 facility prepared under item E and evidence of the financial  
31 assurance required in item F.

32 C. Baseline quality. Baseline quality shall be  
33 established by no less than two consecutive years, or  
34 equivalent, of preoperational data on the receiving waters. The  
35 equivalent testing program shall require 12 sampling events for  
36 the parameters in item E collected during the months of May

1 through October. Testing programs used to establish baseline  
 2 quality shall be reviewed and approved by the commissioner  
 3 before the start of testing. The commissioner shall supply the  
 4 specific intra-year and inter-year variables.

5 D. Closure. If a variance is granted under item A,  
 6 the ~~responsible-person~~ permittee shall restore the receiving  
 7 waters to baseline quality when:

8 (1) aquatic animal production from the facility  
 9 ceases;

10 (2) any of the control pollutant limits in item G  
 11 are exceeded;

12 (3) the permit for the facility expires, and  
 13 reissuance of the permit is not applied for or is applied for  
 14 and denied;

15 (4) the permit for the facility is revoked;

16 (5) an agency order to cease operation is issued;

17 or

18 (6) the required financial assurance under item F  
 19 for closure, postclosure monitoring, or corrective actions is  
 20 not maintained with the proper payment or substitute instrument.

21 E. Closure plan. The applicant shall submit a  
 22 closure plan ~~for-review-and-approval-by-the-commissioner~~ with  
 23 the variance application. The closure plan shall demonstrate  
 24 financial assurance under item F for closure, postclosure  
 25 monitoring, and corrective actions for restoration of the  
 26 receiving waters to baseline quality, and shall ~~demonstrate-the~~  
 27 ~~technological-and-environmental-feasibility-of-restoration-of~~  
 28 ~~the-receiving-waters-to-baseline-quality~~ describe the methods  
 29 and processes that will be implemented to restore the receiving  
 30 waters to baseline quality within three years of initiation of  
 31 closure. The demonstration must show that no additional  
 32 restoration is needed beyond three years. Restoration to  
 33 baseline quality ~~shall-ensure-that-the-most-protective-water~~  
 34 ~~quality~~ of the following parameters ~~are-restored.---For-each-of~~  
 35 ~~the-water-quality-parameters,~~ is required: dissolved oxygen,  
 36 total phosphorus, and chlorophyll-a. Restoration to the

1 baseline quality level means that the mean postclosure baseline  
 2 quality levels shall not be significantly different as  
 3 determined with the appropriate statistical test from the means  
 4 of-the mean preoperational baseline quality levels level.

5 F. Financial assurance. The applicant shall submit  
 6 to the commissioner for review and approval a closure,  
 7 postclosure monitoring, and corrective action cost estimate, and  
 8 evidence of financial assurance, prepared in accordance with  
 9 parts 7035.2685 to 7035.2805.

10 G. Control pollutant limits. The following control  
 11 pollutant limits are established to prevent irreversible  
 12 pollution and to protect the existing beneficial uses, and apply  
 13 to the receiving waters at all times:

14 Substance or Characteristic	Limiting Concentration or Range
15 Total organic carbon	5 milligrams per liter*
16 Nitrate nitrogen	10 milligrams per liter**
17 Chlorophyll-a	30 micrograms per liter***
18 Dissolved oxygen	Not less than 3 milligrams 19 per liter in the bottom half 20 of the hypolimnion and 5 21 milligrams per liter in the 22 upper half of the 23 hypolimnion****

24 \* Annual mean.

25 \*\* Instantaneous value. "Instantaneous value" means the  
 26 concentration in one sample.

27 \*\*\* Monthly mean (May through September).

28 \*\*\*\* Instantaneous value. If the baseline monitoring shows  
 29 that the preoperational oxygen concentration for the same time  
 30 of the year is less than three milligrams per liter for the  
 31 bottom half of the hypolimnion and five milligrams per liter for  
 32 the upper half, there shall be no further reduction of the  
 33 preoperational oxygen concentrations. If the baseline quality  
 34 of a pollutant is greater than the control pollutant limit, or  
 35 less in the case of dissolved oxygen, the baseline quality of  
 36 the pollutant shall be used as the control pollutant limit.

37 Subp. 6. Special conditions.

38 A. Monitoring, testing, and reporting.

1                   ~~(1) On-land facilities shall monitor, test, and~~  
 2 ~~report the flow rate and the pollutant concentrations of the~~  
 3 ~~discharge. The mass of a pollutant discharged shall be~~  
 4 ~~determined by multiplying the flow rate by the pollutant~~  
 5 ~~concentration.~~

6                   ~~(2) In-situ facilities shall monitor, test, and~~  
 7 ~~report dry mass and composition by percentage of all materials~~  
 8 ~~added to and removed from the waters in the facility. The mass~~  
 9 ~~of a pollutant discharged shall be determined as the difference~~  
 10 ~~between:~~

11                                 ~~(a) the dry mass multiplied by the~~  
 12 ~~percentage composition of the materials added, and~~

13                                 ~~(b) the dry mass multiplied by the~~  
 14 ~~percentage composition of the materials removed.~~

15                   ~~The materials to be monitored, tested, and reported~~  
 16 ~~include, but are not limited to, aquatic animal production, fish~~  
 17 ~~food used, waste fish food, filter backwash, sludges, sediments,~~  
 18 ~~and other accumulated solids.~~

19                                 ~~(3) (1) In addition to the requirements for~~  
 20 ~~monitoring, testing, and reporting under part 7001.0150, subpart~~  
 21 ~~2, item B, the permittee shall report the aquatic animal~~  
 22 ~~production and amount of fish food used.~~

23                                 ~~(2) The commissioner may require the permittee to~~  
 24 ~~monitor receiving waters to determine natural background levels~~  
 25 ~~and baseline quality and to determine compliance with state and~~  
 26 ~~federal antidegradation and water quality standard~~  
 27 ~~requirements. The monitoring shall consider natural seasonal~~  
 28 ~~and year-to-year variations in background levels and baseline~~  
 29 ~~quality.~~

30                   ~~B. Collection and disposal of aquatic animal~~  
 31 ~~mortalities and blood. The permittee shall transport aquatic~~  
 32 ~~animal mortalities for rendering or disposal at a land-based~~  
 33 ~~facility. Aquatic animal mortalities shall not be disposed of~~  
 34 ~~in waters of the state. The permittee shall prevent blood~~  
 35 ~~produced through harvest of aquatic animals from entering waters~~  
 36 ~~of the state untreated. The blood generated shall be~~

1 transported to a land-based rendering or disposal facility  
2 approved by the commissioner, or discharged to a publicly owned  
3 treatment works in accordance with the applicable publicly owned  
4 treatment works NPDES/SDS permit.

5 C. Record keeping. The permittee shall maintain an  
6 operation record book of daily operations and other occurrences  
7 that may affect water quality, ~~including, but not limited to,~~  
8 addition of fish food, composition of fish food, aquatic animal  
9 transfers and harvests, cleaning, mortalities, major weather  
10 events, and power failures. The operation record book shall be  
11 available at all times for inspection and copying by the  
12 commissioner.

13 D. Annual report. Each year, the permittee shall  
14 submit an annual report to the commissioner. The report shall  
15 include:

- 16 (1) a general description of the operations  
17 conducted for the past calendar year;
- 18 (2) a summary of the monitoring data;
- 19 (3) the mass of aquatic animals currently at the  
20 facility;
- 21 (4) aquatic animal production at the facility for  
22 the past calendar year;
- 23 (5) methods, amounts, and locations of the  
24 removal and disposal of waste fish food, filter backwash,  
25 sludges, sediments, mortalities, and other accumulated solids  
26 generated at the facility; and
- 27 (6) proposed changes in operation and/or  
28 production for the coming year.

29 E. Water treatment and chemical additives. The  
30 discharge of water treatment and chemical additives shall ~~not be~~  
31 ~~in-toxic-amounts, cause-adverse-human-health-concerns, or~~  
32 ~~violate-water-quality-standards~~ comply with parts 7050.0218 and  
33 7050.0220.