

1 Department of Natural Resources

2

3 Adopted Permanent Rules Relating to Quarantine Facilities for
4 Fertilized Fish Eggs

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6 Rules as Adopted

7 6287.0100 DEFINITIONS.

8 Subpart 1. **Scope.** For purposes of this chapter, the terms
9 in parts 6287.0100 to 6287.0900 have the meanings given them in
10 Minnesota Statutes, section 17.4982, unless otherwise provided
11 in this part.

12 Subp. 2. **Applicant.** "Applicant" means an individual,
13 association, partnership, cooperative, public or private
14 corporation or educational institution, or public agency that
15 applies to the department to import fertilized fish eggs into a
16 quarantine facility.

17 Subp. 3. **Effluent.** "Effluent" means any water discharged
18 from a quarantine facility including fish rearing water,
19 backflush or coolant water, floor drainage, and any potable
20 drainage that does not flow into a sanitary sewer or approved
21 septic system.

22 Subp. 4. **Heat stress test.** "Heat stress test" means a
23 test for disease in fish as described in this subpart that is
24 conducted for 14 to 21 days at a water temperature between 64
25 and 68 degrees Fahrenheit. For catfish, the test is conducted
26 for 14 to 21 days at a water temperature above 80 degrees
27 Fahrenheit. All fish are fed or injected with an
28 immunosuppressant at the beginning of the test. At the
29 conclusion of the test, all fish are sampled as provided by
30 Minnesota Statutes, section 17.4982, subdivision 12. The number
31 of fish sampled must be adequate to statistically determine a
32 two percent level of disease prevalence at a 95 percent
33 confidence level.

34 Subp. 5. **Quarantine unit.** "Quarantine unit" means an
35 enclosed rearing area within a quarantine facility that allows

1 for complete isolation from other quarantine units of fish
2 hatching and rearing tanks, fish culture supplies and equipment,
3 feed, clothing, water supply lines, and drainage lines.

4 Subp. 6. **Sentinel fish.** "Sentinel fish" means a lot of at
5 least 150 fish obtained from a facility with no history of
6 disease that are known to be sensitive to a particular disease
7 agent.

8 6287.0200 **AUTHORITY, SCOPE, PURPOSE.**

9 Subpart 1. **Authority.** This chapter is adopted under
10 authority granted in Minnesota Statutes, section 17.496.

11 Subp. 2. **Scope.** This chapter applies to all facilities
12 constructed for the quarantine of fertilized fish eggs.

13 Subp. 3. **Purpose.** The purpose of parts 6287.0100 to
14 6287.0900 is to prescribe design criteria, operational
15 procedures, and release protocols to minimize risk of
16 introducing emergency fish diseases to the naturalized fishery
17 resources of Minnesota while providing an opportunity for the
18 importation of fertilized fish eggs from emergency
19 disease-restricted areas and areas with unknown fish health
20 history.

21 6287.0300 **IMPORTATION REQUIREMENTS.**

22 Only fertilized fish eggs may be imported into a quarantine
23 facility.

24 6287.0400 **CONSTRUCTION REQUIREMENTS OF QUARANTINE FACILITY.**

25 Subpart 1. **Siting.** A quarantine facility must be outside
26 of the 100-year floodplain and be physically separated from
27 other fish raising facilities in the same watershed by not less
28 than five miles, except that the commissioner may permit a
29 quarantine facility to be within five miles of other fish
30 raising facilities if there is minimal risk of transferring
31 disease to the other facilities. Criteria used by the
32 commissioner to determine the risk will include: flow rate of
33 the water which would receive the quarantine facility effluent;
34 construction, water source, and siting of potentially affected

1 fish culture facilities; and disease susceptibility of the
2 species being raised by potentially affected fish culture
3 facilities. Siting is prohibited if effluent from the facility
4 will be discharged into designated trout waters or other waters
5 containing or managed for salmonids.

6 Subp. 2. **Water supply.** The water supply must be from a
7 spring or well groundwater source, free of fish and fish
8 pathogens, and covered. Water supply systems must be
9 constructed to prevent transmission of pathogens among
10 quarantine units.

11 Subp. 3. **Egg receiving area.** Each facility must have an
12 egg receiving area isolated from quarantine units with respect
13 to equipment, supplies, and clothing.

14 Subp. 4. **Quarantine facility size.** Each facility must be
15 designed to consist of no more than six quarantine units and an
16 egg receiving area.

17 Subp. 5. **Quarantine units.** Quarantine units must be
18 isolated with respect to fish tanks, equipment, supplies, feed,
19 water supply lines, drainage lines, and laboratory clothing.
20 The capacity of each unit must not exceed 100,000 eggs.

21 Subp. 6. **On-site laboratory space.** There must be a
22 minimum of 16 square feet in at least eight linear feet of
23 counter space within each quarantine unit for pathological
24 examination of fish. Each work area must include a sink,
25 running water, adequate lighting, and electrical outlets.

26 Subp. 7. **Disinfection stations.** Each quarantine unit and
27 egg receiving area must have separate disinfection stations.
28 This station must include disinfectant supplies, hand washes,
29 foot baths (preferably sunken), an emergency shower, and a
30 locker room where clothes can be changed, stored, and
31 disinfected.

32 Subp. 8. **Effluent treatment.** Effluent water from all
33 quarantine units and egg receiving areas must enter a common
34 collector. The collector must incorporate a primary
35 disinfectant-sterilization system and an automatic backup system
36 to disinfect all pathogens. All pipes into and out of the

1 collector must be designed to prevent backflow.

2 Subp. 9. **Backup systems.** Every quarantine facility must
3 have installed backups for all systems vital to maintaining the
4 aquatic environment within the facility. A backup generator
5 sized to handle all necessary electrical equipment must be
6 installed to automatically activate during power failures. Each
7 quarantine unit must be monitored with a flow alarm.

8 Subp. 10. **Contingency plan.** A contingency plan for
9 disease control and accidental escapement must be submitted to
10 and approved by the commissioner prior to the operation of a
11 quarantine facility. The plan must contain maps of the
12 watershed in which the facility is located, locations where
13 sentinel fish will be confined, identification of sufficient
14 personnel to execute the plan, source of chlorine supply for
15 disinfectant procedures, length and flow rates of feeder streams
16 and main branches, and identification of financial resources to
17 mitigate damage that may occur from the accidental release of
18 fish or fish pathogens.

19 Subp. 11. **Security.** Minimum security measures must
20 include locking devices on all building entrances and facility
21 gates, and fencing around unenclosed components of the facility.

22 6287.0500 QUARANTINE FACILITY LICENSING.

23 Subpart 1. **Quarantine facility licensing and inspection.**
24 No facility may be licensed as a quarantine facility unless the
25 commissioner determines that standards specified in parts
26 6287.0400 to 6287.0600 are met. The commissioner may conduct an
27 on-site inspection of a quarantine facility at reasonable times.

28 Subp. 2. **Personnel qualifications.** A quarantine facility
29 must have at least one full-time person with two years of fish
30 culture experience and fish health training from an accredited
31 academic or United States Fish and Wildlife Service program.

32 6287.0600 OPERATION OF QUARANTINE FACILITY.

33 Subpart 1. **Egg receiving.** All egg deliveries must have a
34 certified health inspection statement for parental stock from
35 which the eggs were taken. Fish eggs may only be received in

1 the receiving area. A complete disinfection, as described in
2 subpart 5, of the egg receiving area is required before and
3 after each egg delivery. All eggs must be disinfected before
4 transfer into quarantine units. Transfer of disinfected eggs
5 from the egg receiving area shall be done by a person who was
6 not in contact with the incoming eggs before they were
7 disinfected. All packing materials, excess fluids, and other
8 materials related to the shipping of eggs must be incinerated or
9 chlorinated to avoid potential spread of pathogen.

10 Subp. 2. Transfer into quarantine. Eggs from the same lot
11 may be transferred into more than one quarantine unit provided
12 the units remain isolated.

13 Subp. 3. Quarantine period. All fish hatched from
14 quarantined eggs must remain quarantined for a minimum of 12
15 months, unless they are sold directly to an outlet for
16 processing and human consumption, or unless the fish develop a
17 certifiable disease and must be removed as provided by subpart 6.

18 Subp. 4. Facility disinfection. The following procedure
19 will be considered a complete disinfection when using chlorine.

20 A. All objects to be disinfected must be cleansed of
21 all organic matter before application of chlorine.

22 B. A chlorine solution must be maintained on all
23 surfaces at not less than 200 parts per million for the first
24 hour and at not less than 100 parts per million for an
25 additional four hours.

26 C. All raceways, troughs, drain pipes and lines, and
27 loose equipment, such as buckets, nets, and screens, must be
28 disinfected as specified in item B.

29 D. All interior surfaces of the quarantine unit must
30 be sprayed with a solution of 1,600 parts per million chlorine.
31 Sufficient quantity and pressure must be applied so that
32 crevices will be penetrated to destroy infectious organisms.

33 E. All disinfected objects must be thoroughly rinsed
34 with clean water and neutralized with a solution of three parts
35 sodium thiosulfate to one part chlorine upon completion of the
36 disinfection.

1 F. Other disinfection methods and procedures ~~as~~ must
2 be approved by the commissioner.

3 Subp. 5. Effluent disinfection. Effluent treatment
4 methods must be approved by the commissioner and must comply
5 with chapter 7050. If chlorine disinfectant is used, a
6 measurable residual level of 1.0 part per million active
7 chlorine must be maintained for one hour of retention time. The
8 design must include a backup system that ensures noninterrupted
9 treatment of effluent. Concentration of the disinfectant must
10 be monitored by a recording-sensing device that is functional at
11 all times.

12 Subp. 6. Inspection and disposal of diseased fish. Daily
13 mortalities may be inspected by the commissioner. Mortalities
14 not required for inspection must remain in the quarantine unit
15 and be placed in disinfectant until they are properly disposed.

16 If a certifiable disease is detected, a confirmational test
17 must be done. Upon confirmation of a certifiable disease, the
18 commissioner may order that fish be destroyed, sold for human
19 consumption, or otherwise disposed.

20 Each quarantine facility must dispose of fish mortalities
21 by use of a gas- or oil-fired incinerator or by other disposal
22 methods approved by the commissioner. Equipment and solid waste
23 materials that are potentially contaminated with fish pathogens
24 must be treated by chlorination or an alternate method approved
25 by the commissioner.

26 Subp. 7. Disinfection required. A complete disinfection
27 of the quarantine unit, as described in subpart 5, is required
28 after fish are released from quarantine or after the discovery
29 of a certifiable disease.

30 If a certifiable disease is detected, sentinel fish must be
31 kept in the affected quarantine unit after disinfection to
32 verify the effectiveness of disinfections, and held for at least
33 120 days following disinfection. All mortalities of sentinel
34 fish must be monitored and inspected for disease. Surviving
35 sentinel fish must be subjected to a heat stress test.

36 Subp. 8. Personnel movement. Access to quarantine

1 facilities must be limited to designated personnel only.
2 Personnel entering or exiting an egg receiving area or
3 quarantine unit must use a disinfection station. Personnel must
4 disinfect themselves using foot baths and hand washes, and wear
5 protective clothing prior to entering or exiting a quarantine
6 unit or an egg receiving area. Used outer clothing must be
7 disposed of or laundered with disinfectants.

8 6287.0700 RECORD KEEPING AND REPORTING.

9 A daily log must be kept on mortality, transfers, feeding,
10 approved chemical use, treatments, assessments, water quality,
11 inspections, disinfectant levels in effluent, and personnel
12 movement. Any signs of disease must be reported to the
13 commissioner within 24 hours. Chemical use to treat disease
14 requires prior confirmation of a diagnosed fish health problem
15 by the commissioner. Mortality reports for each quarantine unit
16 must be submitted to the commissioner weekly. Approved chemical
17 usage and effluent disinfectant operation must be reported and
18 submitted to the commissioner monthly.

19 6287.0800 INSPECTION REQUIREMENTS.

20 Fish in quarantine must be monitored and inspected for
21 certifiable disease agents at monthly intervals by a fish health
22 inspector. If requested, the commissioner will conduct fish
23 health inspections for a fee as provided in Minnesota Statutes,
24 section 17.4988, subdivision 3.

25 6287.0900 RELEASE FROM QUARANTINE.

26 Subpart 1. Final testing. A final inspection must be
27 conducted after fish have been in quarantine and have been
28 feeding for 12 to 16 months. This inspection must include the
29 use of a heat stress test on all sampled fish. Results of the
30 inspection must be reviewed and approved by the commissioner.

31 Subp. 2. Quarantine report. A completed quarantine report
32 on forms provided by the commissioner must accompany each lot of
33 fish to be released from quarantine.

34 Subp. 3. Release of fish. Fish released from a quarantine

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1 facility cannot be released into the wild and must be processed
2 for use as food or kept in a facility licensed by the
3 commissioner under part 6250.0300, subpart 1, or Minnesota
4 Statutes, section 17.4984, subdivision 1, or 97A.401,
5 subdivision 3.