

Subpart 4-Bureau of Regulatory Services
Chapter 11-Guidelines For Aquaculture Activities

Introduction

100 The purpose of this Act is to improve coordination of aquaculture activities and to enhance related opportunities and benefits to U.S. citizens who are interested in pursuing aquaculture operations in Mississippi. The Act also provides a means of regulating operations in the State that would not only be beneficial to aquaculturists, but also will enhance and conserve a desired quality in our natural aquatic resources. The Act encourages aquaculture activities in Mississippi that enhance existing aquaculture enterprises and the development of new ones to provide increased job opportunities and income for the benefit of Mississippians.

Source: *Miss. Code Ann.* §79-22-13.

Definitions of Aquaculture Activities

- 101 The following words were used in this chapter have the following meanings
1. **AQUACULTURE** - the process of growing, farming, cultivating and/or harvesting of cultured aquatic products in marine or freshwater and includes management by an aquaculturist.
 2. **AQUACULTURIST** - a person who is engaged in the cultivating of cultured aquatic products.
 3. **AQUACULTURE FACILITY** - any facility or resource that is used for aquaculture activities and operations in Mississippi.
 4. **COMMISSIONER** - refers to the Commissioner of the Mississippi Department of Agriculture and Commerce.
 5. **CULTURED AQUATIC PRODUCTS** - marine or freshwater plants or animals that are propagated, farmed or cultivated in an aquaculture facility under the supervision and management of an aquaculturist or that are naturally produced in an aquaculture facility that at the time of production are under the active supervision and management of an aquaculturist.
 6. **CULTIVATION/MARKETING PERMIT** - a permit issued by the Department, applicable to design criteria to prevent release of certain cultured aquatic products from an aquaculture facility into the environment. This permit is to provide a mechanism for tracing marketed and cultured aquatic products to verify that they were cultured in an aquaculture facility and were not harvested from wild stocks and to prevent the release of undesirable species into the environment.
 7. **BROODFISH COLLECTION PERMIT** *Miss. Code Ann.* §79-22-15(1) - an approval by the Department of Wildlife, Fisheries and Parks for the collection of gamefish broodstock from natural waters in the State.
 8. **DEPARTMENT** - refers to the Mississippi Department of Agriculture and Commerce (MDAC) as the charge agency for the aquaculture law as per the Aquaculture Act of 1988 as amended.

Source: *Miss. Code Ann.* §79-22-13.

Aquaculture Activities Requiring Permits

- 102 Cultivation/Marketing permit(s) are required of an aquaculturist who produces and/or markets aquatic products from the following aquatic plants and animals.
1. All non-native aquatic plants and animals
 2. All gamefish in Mississippi with the following exceptions:
 - a. Black bass, bream, crappie, flathead catfish, walleye and other members of the families *Centrarchidae* and *Percidae* shall not be produced and sold for food consumption, but may be produced and sold for stocking private recreational sportfishing waters only.
 3. Endangered, Threatened or Protected Species
 4. Genetically modified aquatic plants and animals by means other than cross breeding

Source: *Miss. Code Ann.* §79-22-13.

Aquaculture Activities Not Requiring Permit(s)

- 103.01 Culture of any currently recognized native aquatic plant, animal and non-game fish. However, marketing permits may be needed to aid in marketing products in other states or countries. The Department shall issue cultivation/marketing permits requested for such reasons.
- 103.02 Culture of catfish by the catfish industry, where catfish and catfish products are grown, farmed, and processed for sale.
- 103.03 Culture and retail sales of tropical fish maintained in closed systems utilized by pet shops, hobbyists and their suppliers.
- 103.04 Culture of minnows by licensed minnow dealers. The activities are covered in 49-7-29 (Department of Wildlife, Fisheries & Parks regulations).
- 103.05 Operation of fish-out lakes (pay-fishing lakes).

Source: *Miss. Code Ann.* §79-22-13.

Prohibited Species

- 104 All species of the following animals and plants have been determined to be detrimental to the State's native resources and further sales or distribution are prohibited in Mississippi. No person shall import, sell, possess, transport, release or cause to be released into the waters of the state any of the following aquatic species

or hybrids thereof. However, species listed as prohibited may be allowed under a permitting process where environmental impact has been assessed.

- Lampreys	Family Petromyzontidae* ****
- Piranha and pirambebas	Subfamily Serrasalminae ** ****
- Banded tetra	<i>Astyanax fasciatus</i>
- Mexican tetra or Silvery tetra	<i>Astyanax mexicanus</i>
- Tiger characin or trahira	<i>Hoplias malabaricus</i>
- Skinny Tiger characin or biara	<i>Raphidon vulpinus</i>
- Pencil or parasitic catfishes	Family Trichomycteridae ****
- Airbreathing or Walking catfishes	Family Clariidae ****
- Bony-tongue fishes	Family Osteoglossidae ****
- Dorados or dourados	Genus <i>Salminus</i> ****
- Freshwater stingrays	Family Potamotrygonidae ****
- Nile perches	Genera <i>Lates</i> and <i>Luciolates</i> ****
- African electric catfishes	Family Malapteruridae ****
- African tigerfishes	Family Alestidae, Subfamily Hydrocyninae ****
- Freshwater electric eels	Family Electrophoridae ****
- Snakeheads	Family Channidae ****
- South American tigerfishes	Family Erythrinidae ****
- Airsac catfishes	Family Heteropneustidae ****
- Peacock bass or Peacock cichlid	<i>Cichla ocellaris</i>
- <i>South American pike characoids</i>	Family Characidae, all species of the Genus <i>Acestrorhynchus</i> ; Family Ctenolucidae, all species of the Genera <i>Ctenolucius</i> and <i>Luciocharax (Boulengerella)</i>
- African Pike characoids	Family Hepsetidae, all species of the Genus <i>Hepsetus</i>
- Rhipiodontid characoids	Family Ichthyboridae, all species
	Family Characidae, Subfamily Rhipiodontinae, all species of the Genera, <i>Hydrolycus</i> and <i>Raphiodon (Cynodon)</i>
	<i>Gymnotus carapo</i>
- Banded knifefish	Family Cyprinidae, all species of the Genera <i>Cirrhinus</i> and <i>Thynnichthys</i>
- Mud carp, Sandhkol carp	Family Cyprinidae, all species of the Genera <i>Scardinius</i> and <i>Rutilus</i>
Rudd and Roach	Family Cyprinidae, all species of the Genera <i>Abramis</i> , <i>Blicca</i> , <i>Megalobrama</i> and <i>Parabramis</i>
Old World breams	Family Cyprinidae, all species of the Genus <i>Leuciscus</i>
Old World chubs, ide & dace	Family Cyprinidae, all species of the Genera <i>Aspius</i> , <i>Pseudaspius</i> , <i>Aspiolucius</i> , and <i>Elopichthys</i>
Asps and yellowcheek	Family Cyprinidae, all species of the Genus <i>Tor</i>
Giant Barbs and Mahseers	and the species <i>Barbus tor</i> and <i>Barbus hexagonolepis</i>

Catla	Family Cyprinidae, all species of the Genus <i>Catla</i>
Whale catfishes	Family Cetopsidae, all species
Pike killifish	Family Poeciliidae, <i>Belonesox belizanus</i>
Marine stonefishes	Family Synanceiidae, all species
Ruffes and Schraetzers	Family Percidae, all species of the Genus <i>Gymnocephalus</i>
Zanders	Family Percidae, <i>Stizostedion lucioperca</i> , <i>Stizostedion volgense (volgensis)</i> , <i>Stizostedion marinum</i>
Pike cichlids	Family Cichlidae, all species of the Genera <i>Crenicichla</i> and <i>Batrachops</i>
Asian pikehead	Family Luciocephalus, all species

Plants

- Hydrilla (Florida Elodea)	<i>Hydrilla verticillata</i>
- Egeria (African Elodea)	<i>Egeria densa</i>
- Water Hyacinth	<i>Eichhornia crassipes</i>
- Rooted hyacinth	<i>Eichhornia azurea</i>
- Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>
- Water lettuce	<i>Pistia stratiotes</i>
- Paperbark (Melaleuca)	<i>Melaleuca quinquenervia</i>

Mussels and Crayfish

- Yabbie Lobster	<i>Cherax destructor</i>
- Zebra Mussel	<i>Dreissena polymorpha</i>
- Tasmanian Giant crayfish	All species of the Genus <i>Astacopsis</i>
* - includes Sea lamprey	
** - includes all the piranhas	
**** - all species	

Source: *Miss. Code Ann.* §79-22-13.

Requirements For The Culture Of Non-Native Species

105.01 The culture of Carp Species:

1. The culture of any non-native carp species (such as bighead carp, black carp, grass carp, silver carp and common carp) shall be conducted in a responsible manner that excludes the possibility of escape. It is necessary to construct a barrier that prevents escape of juvenile and adult

fishes. Since these species are not known to reproduce in a pond culture situation, it will be acceptable to double screen pond drainpipes with at least one screen being of a mesh size small enough to prevent the passage of fingerling carp. Window screening material will not be considered adequate.

2. Facilities that spawn carp fry must filter the hatchery effluent to prevent the passage of eggs and/or fry from the facility. A sand or pea gravel filter is the most effective measure to filter eggs and fry.

105.02 The culture of Tilapia Species:

1. Due to the prolific nature of the Tilapia species, a fish barrier shall be designed to prevent the discharge of water containing Tilapia eggs, larvae, juveniles and adults from the permittee's property.
2. Although Tilapia may not overwinter in Mississippi waters, precautions must be taken to limit their escape into native waters. This shall be accomplished by using a 1000-micron mesh screen.

105.03 The culture of all other non-native species: The culture of any non-native species not maintained in a closed system must incorporate a filtering system to prevent the passage of eggs, larvae, juveniles and adults from the applicant's property.

105.04 Release or escape of non-native species: In the event that non-native aquatic organisms are released or escape from a permitted facility into waters of the state, the Department shall notify the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) as soon as possible. If the MDWFP determines that the presence of these non-native organisms could become or is detrimental to native fishes, MDWFP personnel may attempt to remove or eradicate all non-native organisms. All costs necessary to effect removal or eradication will or may require reimbursement to MDWFP by the aquaculturist responsible for the release or escape, if proved to be the fault of the aquaculturist through neglect and/or mismanagement. The aquaculturist shall not be responsible for acts of nature and/or unforeseen occurrences such as floods, lightning, or sabotage.

Source: *Miss. Code Ann.* §79-22-13.

Permitting Process

106.01 General Aquaculture Permits:

1. The Aquaculturist must procure a permit application from the Department by calling Gene Robertson at 601-359-1102 or writing to the Mississippi Department of Agriculture and Commerce, P.O. Box 1609, Jackson, MS 39215-1609, attention: Gene Robertson.

2. Only U.S. citizens are eligible to receive approved cultivation/marketing permits in Mississippi. Proof of citizenship shall be provided with application.
3. Completed applications along with a permit fee of \$100.00 for the first species and \$10 for each additional species should be mailed to the Mississippi Department of Agriculture and Commerce, P.O. Box 1609, Jackson, MS 39215-1609, attention: Gene Robertson. The fee for a marketing or cultivation permit issued to a nonresident of Mississippi shall be \$100.00 plus \$10.00 per each additional species or the amount imposed on a Mississippi resident by a nonresident state, whichever is greater.
4. The Department will send copies of application to the review agencies and make an on-site inspection. A permit will be issued following all reviews, inspections and receipt of permit fee.
5. Permits are valid for a period of one year from date of issuance. The Department will set permit fees.
6. The cultured aquatic products may be possessed by the Aquaculturist only after approval of the initial application and the issuance of the original permit.
7. Other permits may be required as specified by the Department of Environmental Quality.
8. Permits may be required by other state, federal, city or county agencies.

Source: *Miss. Code Ann.* §79-22-13.

Reporting Requirements

- 107 The permittee is required to submit the following information upon request to the Department:
1. Aquaculturists shall furnish upon request to the Department a record of sales covering fish and/or plants imported and/or sold, giving the species of each, the number or pounds (or other units of sale) of each, date of shipment, to whom or from whom each was sold or were received and the address and phone number of the supplier or purchaser at the time of billing. If fish and plants have not been sold or received during the year, this shall be reported. Such information shall be kept on site for a period of 3 years.
 2. Failure to submit requested information to the Department may result in cancellation of permits within 60 days of written notice.

Source: *Miss. Code Ann.* §79-22-13.

Shipping and Labeling Requirements

108.01 Such permitted aquatic products shall be accompanied by a bill of lading, waybill, invoice or other document detailing the following:

1. Name, address and phone number of both the buyer and the seller.
2. Scientific and common name of product.
3. Quantity (weight and/or number) by species packaged for delivery to buyer.
4. The Cultivation/Marketing permit number issued by the Department.
5. Date of shipment.
6. The permittee shall retain a copy of the bill of lading or similar accountable document for three years and make it available to the Department upon request.

108.02 All dead or live plants and animals specified must conform to one of the following categories.

1. Category I. Live Animals and Plants:
 - a. All live animals and plants transported from the permitted facility in containers or boxes shall be clearly labeled with information required under subsection 108.01.
 - b. Live animals and plants transported using a live haul vehicle shall be accompanied by information required under subsection 108.01. Said information shall be maintained in the vehicle at all times during transport of the product.
2. Category II. Dead Animals and Plants: Dead plant and animal products shall be packaged in sealed containers and shall contain information stated under subsection 108.01. Containers shall be clearly labeled showing information required under subsection 108.01.
3. Category III. Tagged Animals and Plants: Plants or animals tagged individually by use of tags approved by the Department. (Tags shall be used if previously stated labeling procedures are determined to be ineffective for monitoring marketed cultured aquatic products).
 - a. The permitted aquaculture facility shall pay the cost of manufacturing and delivering the tags. (Requests for tags will be made upon permit application).
 - b. Each product shall be tagged with consecutively numbered tags from the Department.
 - c. The tag sequence shall be present on all invoices and waybills.
 - d. Tags shall remain on the individual product until utilized by the end user.
4. Category IV. Gamefish: Gamefish are produced by aquaculturists for the stocking of private recreational sportfishing waters only.
 - a. Live fish transported using a live haul vehicle must be accompanied with information stated under subsection 108.01. This information shall be maintained in the vehicle at all times during transport of the product.

Source: *Miss. Code Ann.* §79-22-13.

Broodstock Acquisition

- 109 Broodstock for aquaculture facilities may be obtained as follows:
1. By legal sportfishing and commercial fishing harvest methods as allowed by existing regulations.
 2. By purchase of broodstock from a permitted aquaculture facility.
 3. Through use of an approved broodstock collection permit from the Department of Wildlife, Fisheries and Parks.
 - a. Broodstock collection permit may be issued on a case-by-case basis determined by the Department of Wildlife, Fisheries and Parks with assured levels of compensation.
 - b. Harvest involves taking certain species from natural waters by temporarily approved methods not covered under existing regulations and limits.
 - c. Collection under this permit requires compensation by:
 - i. Stocking waters with a specified size and number of organisms at time(s) and place(s) specified by the Department of Wildlife, Fisheries and Parks.
 - ii. Providing a specified level of funds to the Department of Wildlife, Fisheries and Parks for production by the Department or its contractors of a specified number and size of organisms of a given species for stocking natural waters.
 - d. Determination of the level of compensation, if any, that is required will be made by the Department of Wildlife, Fisheries and Parks on the basis of the probable impact on wildstocks.
 - e. No broodstock taken from the state waters will be allowed for sale or transport out of the state, except state educational institutions and state and federal agencies may transport such broodstock out of the state.

Source: *Miss. Code Ann.* §79-22-13.

Facility Inspection and Health Certification

110.01 The Mississippi Department of Agriculture and Commerce and the Mississippi Department of Wildlife, Fisheries and Parks reserve the right to periodically inspect each facility for permit compliance.

110.02 Cultivation and marketing permits may include provisions for live animals or plants to be inspected for disease.

Source: *Miss. Code Ann.* §79-22-13.

Aquaculture Building Requirements

- 111 Construction associated with aquaculture facilities shall not be required to exceed the building requirements specified for agricultural operations.

Source: *Miss. Code Ann.* §79-22-13.

Violations

- 112.01 When any complaint is made against any person for violating any of the provisions of the Mississippi Aquaculture Act of 1988, Miss. Code of 1972, 79-22-1, et seq. ("act"), or any of the regulations promulgated thereunder, the Director of the Bureau of Regulatory Affairs of the Mississippi Department of Agriculture and Commerce, or his designee, shall act as the reviewing officer. The complaint shall be in writing and shall be filed in the office of the Mississippi Department of Agriculture and Commerce ("Department"). The reviewing officer shall deliver to the accused a copy of the complaint, any supporting documents and a notice of hearing. An informal hearing shall be scheduled before the reviewing officer, which shall be held no sooner than twenty (20) days after written notice is delivered to the accused. Notification to the accused may be accomplished by certified mail or by any of the methods provided in Rule 4 of the Mississippi Rules of Civil Procedure. The accused may appear personally at said hearing and provide to the hearing officer a written answer and any documents and affidavits in support of his position. The reviewing officer shall explain the charges, and the accused may state his position and defenses. It is anticipated that the only persons making statements at this hearing will be the complainant, the reviewing officer and the accused. If the accused fails to appear at said hearing or to file a written answer, the allegations in the complaint shall be accepted as being true, and the reviewing officer shall enter an appropriate order. If the matter is contested, the reviewing officer shall review all of the evidence to determine the merit of the complaint.
- 112.02 If the reviewing officer determines that the complaint lacks merit, he may dismiss same. If he finds that there are reasonable grounds to find that a violation has occurred, the reviewing officer may issue a warning, and/or suspend or revoke the permit of the accused and/or impose a civil penalty of no less than \$250 nor more than \$1,000 for each violation. In the case of violations involving the marketing of non-cultured gamefish, each fish will be counted as a separate violation. The reviewing officer shall rule within a reasonable time after the hearing. A copy of the reviewing officer's decision shall be sent to the accused by certified mail. The accused shall have the right to appeal to the Commissioner of the Department by filing a notice of appeal with the Bureau of Regulatory Affairs within twenty (20) days of receipt of the reviewing officer's decision. Such appeal shall be without supersedeas. If no appeal is taken, said decision shall be final.
- 112.03 In the event of an appeal, the Commissioner, or his designee, shall conduct an evidentiary hearing relative to the charges. The Commissioner, or his designee, shall receive and hear all the evidence and arguments offered by both parties and shall

afford the accused a full opportunity to present all defenses available to him. The testimony of witnesses at the hearing shall be upon oath or affirmation, and they shall be subject to cross-examination. The testimony shall be recorded electronically, but there is no requirement for it to be transcribed. The rules of evidence shall be relaxed.

112.04 Upon the conclusion of the hearing, the Commissioner, or his designee, shall promptly render an opinion, which either affirms, reverses or amends the order of the reviewing officer, in whole or in part. The Commissioner shall notify the accused of his opinion by certified mail. Such opinion shall be final. Any penalty assessed herein shall be due and payable within twenty (20) days after the order in which it is assessed becomes final. The computation of time under this regulation shall be the same as that set forth in the Mississippi Rules of Civil Procedure.

Source: *Miss. Code Ann.* §79-22-13.

Agency Listing

113 Contact information:

1. Mississippi Department of Agriculture and Commerce
P.O. Box 1609
Jackson, MS 39215-1609
601-359-1102
2. Department of Environmental Quality
Office of Land and Water Resources
P.O. Box 10631
Jackson, MS 39289-0631
601-961-5200
3. Department of Environmental Quality
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39205
601-961-5171
4. State Department of Health
State Health Officer's Office
P.O. Box 1700
Jackson, MS 39215-1700
601-960-7634
5. Mississippi Department of Wildlife, Fisheries and Parks
Fisheries Division
P.O. Box 451
Jackson, MS 39205-0451
601-364-2200
6. Mississippi Department of Marine Resources
152 Gateway Drive
Biloxi, MS 39531

228-385-5860

7. District Engineer
U.S. Army Engineer
District Mobile
Attn: SAMOP-S
P.O. Box 2288
Mobile, AL 36628
205-694-3775
8. District Engineer
U.S. Army Engineer
District Vicksburg
Attn: LMKOD-FE
4155 Clay Street
Vicksburg, MS 39180-5191
601-634-5289

Source: *Miss. Code Ann.* §79-22-13.