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**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Parts 600 and 622**

**[Docket No. 080225276-5601-02]**

**RIN 0648-AS65**

**Fisheries of the Caribbean, Gulf, and South Atlantic;**

**Aquaculture**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS issues this final rule to implement the Fishery Management Plan for Regulating Offshore Aquaculture in the Gulf of Mexico (FMP), as prepared by the Gulf of Mexico Fishery Management Council (Council). The FMP entered into effect by operation of law on September 3, 2009. This final rule establishes a comprehensive regulatory program for managing the development of an environmentally sound and economically sustainable aquaculture fishery in Federal waters of the Gulf of Mexico (Gulf), *i.e.*, the Gulf exclusive economic zone (EEZ). The purpose of this final rule is to increase the yield of Federal fisheries in the Gulf by supplementing the harvest of wild

caught species with cultured product.

**DATES:** This rule is effective [*insert date 30 days after date of publication in the FEDERAL REGISTER*].

**ADDRESSES:** Electronic copies of the FMP, which includes a final programmatic environmental impact statement (FPEIS), a Regulatory Flexibility Act analysis (RFA), and a regulatory impact review, along with the supplement to the FPEIS (SFPEIS) and supplemental information report (SIR), may be obtained from the Southeast Regional Office's Aquaculture Web site (Web site) at [http://sero.nmfs.noaa.gov/sustainable\\_fisheries/gulf\\_fisheries/aquaculture/](http://sero.nmfs.noaa.gov/sustainable_fisheries/gulf_fisheries/aquaculture/).

Comments regarding the burden-hour estimates, clarity of the instructions, or other aspects of the collection-of-information requirements contained in this final rule may be submitted in writing to Adam Bailey, Southeast Regional Office, NMFS, 263 13th Avenue South, St. Petersburg, FL 33701; or, the Office of Management and Budget, by e-mail at [OIRASubmission@omb.eop.gov](mailto:OIRASubmission@omb.eop.gov), or by fax to 202-395-5806.

**FOR FURTHER INFORMATION CONTACT:** Jess Beck-Stimpert, 727-824-5301.

**SUPPLEMENTARY INFORMATION:** The aquaculture fishery in the Gulf

is managed under the FMP. The FMP was prepared by the Council and is being implemented through regulations at 50 CFR part 622 under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

On June 4, 2009, NMFS published a notice of availability for the FMP and requested public comment (74 FR 26829). On September 3, 2009, the FMP entered into effect by operation of law. On that same date, NOAA announced that it would develop a new National Aquaculture Policy that would provide context for the FMP. On June 9, 2011, NOAA announced the release of the final National Aquaculture Policy and NOAA's intentions to move forward with rulemaking for the FMP. On August 28, 2014, NMFS published a proposed rule for the FMP and requested public comment (79 FR 51424). The proposed rule and the FMP outline the rationale for the actions contained in this final rule. A summary of the actions implemented by this final rule is provided below.

The FMP was developed under the authority of the Magnuson-Stevens Act to regulate aquaculture operations in the Gulf EEZ. The FMP provides a comprehensive framework for authorizing and regulating offshore aquaculture activities. The FMP also establishes a programmatic approach for evaluating the

potential impacts of aquaculture operations in the Gulf.

### **Gulf Aquaculture Permits**

This final rule requires persons who want to conduct select aquaculture activities in the Gulf exclusive economic zone (EEZ) to apply for and obtain a Gulf aquaculture permit. This permit authorizes the operation of an offshore aquaculture facility in the Gulf EEZ and allows the sale of allowable aquaculture species cultured at an offshore aquaculture facility in the Gulf EEZ. Persons issued a Gulf aquaculture permit are authorized to harvest, or designate hatchery personnel or other entities to harvest, and retain live wild broodstock of an allowable aquaculture species, and to possess or transport cultured species in, to, or from an offshore aquaculture facility in the Gulf EEZ. Permit eligibility is limited to U.S. citizens and permanent resident aliens. Gulf aquaculture permits are transferable as long as the geographic location of the aquaculture facility site remains unchanged and all applicable permit requirements are satisfied and up-to-date at the time of transfer. The Gulf aquaculture permit is effective for 10 years and must be renewed in 5-year increments thereafter to remain valid. The initial permit application fee is \$10,000, and a \$1,000 fee is assessed annually, to cover the administrative

costs of issuing permits and reviewing permit activities that are reported annually. The renewal application fee is \$5,000. These fees are based on the NOAA Finance Handbook. A valid Gulf aquaculture permit must be prominently displayed and available at the aquaculture facility. An aquaculture facility is defined broadly at 50 CFR part 622.2 as an installation of a structure, including any aquaculture system(s) (including moorings), hatcheries, equipment, and associated infrastructure used to hold, propagate, and rear allowable aquaculture species in the Gulf EEZ under the authority of a Gulf aquaculture permit. For those parts of the aquaculture facility that are deployed in the water, the permit holder may choose to comply with the requirement to display the Gulf aquaculture permit by marking the gear with the permit number. A copy of a valid Gulf aquaculture permit signed by the permit owner must be in the possession of any person who possesses live wild broodstock of an allowable aquaculture species, or who possesses or transports cultured species in, to, or from an offshore aquaculture facility in the Gulf EEZ.

A dealer who receives species cultured at an offshore aquaculture facility in the EEZ is required to have a Gulf aquaculture dealer permit. As defined in 50 CFR 600.10, dealer

means the person who first receives fish by way of purchase, barter, or trade. The fee for a Gulf aquaculture dealer permit fee is \$50.00 (if the person applies for a single permit) or \$12.50 (if the person applies for the Gulf aquaculture dealer permit in conjunction with another type of permit) to cover the administrative costs of permit issuance. Dealer permits are issued annually and must be prominently displayed and available on the dealer's premises. A Gulf aquaculture dealer permit is not transferable.

#### **Electronic System Requirements, Account Setup, and Information**

The administrative functions associated with this aquaculture program, such as account setup, landing transactions, and reporting, are to be accomplished online; therefore, all permittees need access to a computer and the Internet to participate. NMFS will mail permittees information and instructions for setting up an online aquaculture account and using the online system, upon issuance of a Gulf aquaculture permit or a Gulf aquaculture dealer permit. Assistance with online functions is available from the Permits Office, Monday through Friday between 8 a.m. and 4:30 p.m. eastern time.

Additionally, the NMFS Southeast Regional Administrator (RA) will provide each aquaculture permittee with paper forms

for complying with the basic reporting requirements of the aquaculture program when use of such forms is authorized during catastrophic conditions. The RA will determine when catastrophic conditions exist, the duration of the catastrophic conditions, and which participants or geographic areas are affected by the catastrophic conditions. The RA will provide timely notice to affected participants and may authorize the affected participants' use of paper forms for the duration of the catastrophic conditions. Program functions are limited under the paper-based system. Assistance in complying with the requirements of the paper-based system is available via the Permits Office, Monday through Friday between 8 a.m. and 4:30 p.m. eastern time.

If some online functions are not available at the time of initial implementation of this aquaculture program, participants may comply by submitting the required information via email using the appropriate forms that are available on the Web site. Once online functions are available, participants must comply by using the online system unless alternative methods are specified.

### **Application Requirements**

Applications for a Gulf aquaculture permit are available

from the RA or from the Web site. Applicants must complete and submit the application form and all required supporting documents to the RA at least 180 days prior to the date they desire the permit to be effective. Information required as part of the application package includes: name of business, name of applicant, hatchery contact information, documentation of U.S. citizenship or resident alien status, a baseline environmental survey of the proposed site conducted consistent with the guidance specified by NMFS and available on the Web site, a description of the geographic location and dimensions of the aquaculture facility and site, a description of the equipment, aquaculture systems, and methods to be used for grow-out (time period from when an organism is stocked into offshore systems until it is harvested for market), a list of species to be cultured, estimated production levels of each species to be cultured, and a copy of an emergency disaster plan (an emergency plan in the event of a disaster).

The applicant is required to obtain an assurance bond sufficient to cover the costs associated with removing all components of the aquaculture facility, including cultured animals, if permittees fail to do so when ordered by NMFS.

The applicant is required to provide a document certifying

that all broodstock or progeny of such broodstock will be or were originally harvested from U.S. waters of the Gulf, will be or were harvested from the same population or sub-population that occurs where the facility is located, and that no genetically engineered or transgenic animals will be used or possessed at the aquaculture facility. The purpose of these requirements is to ensure that the genetic make-up of cultured animals is similar to the wild stocks where the facility is located. As defined in § 622.2 of this final rule, genetically engineered animals are those modified by rDNA techniques, including the entire lineage of animals that contain the modification. The term 'genetically engineered animal' can refer to both animals with heritable rDNA constructs and animals with non-heritable rDNA constructs (e.g., those modifications intended to be used as gene therapy). Also defined in § 622.2 of this final rule, transgenic animals are those whose genome contains a nucleotide sequence that has been intentionally modified in vitro, and the progeny of such an animal.

The applicant is required to provide a copy of the contractual agreement with a certified aquatic animal health expert. An aquatic animal health expert is defined as a licensed doctor of veterinary medicine or a person who is certified by

the American Fisheries Society, Fish Health Section, as a "Fish Pathologist" or "Fish Health Inspector."

Prior to issuance of a Gulf aquaculture permit, permit applicants must provide NMFS a copy of valid Federal permits (e.g., Army Corps of Engineers (ACOE) Section 10 permit, and Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) permit) and authorizations applicable to the proposed aquaculture site, facilities, or operations. Permit applicants do not need to provide copies of these valid Federal permits as part of their Gulf aquaculture permit application.

#### **Public Comment Process Regarding Gulf Aquaculture Permit**

##### **Applications**

After the RA has determined an application to be complete, NMFS will announce its receipt of the application in the **Federal Register**. The public will be provided up to 45 days to comment on the application and comments will be requested during public testimony at a Council meeting. The RA may consult with the Council on the permit application and will offer the applicant an opportunity to appear in support of the application at a Council meeting. After public comment ends and comments are reviewed, the RA will notify the applicant and the Council in

writing of the decision to issue or deny the Gulf aquaculture permit. Reasons the RA may deny a permit might include: the applicant fails to disclose material information or includes false statements of material facts; the RA determines that issuing the permit would pose significant risk to marine resources, public health, or safety, or conflict with established or potential oil and gas infrastructure, access to outer continental shelf (OCS) energy or marine mineral resources, safe transit to and from infrastructure, or future geological and geophysical surveys; or the RA determines the application proposes activities that are inconsistent with the objectives of the FMP, Magnuson-Stevens Act, or other applicable laws. The RA also may consider revisions to the application made by the applicant in response to public comment before approving or denying the Gulf aquaculture permit request.

#### **Consultation with Other Federal Agencies**

The RA will consult with Federal agencies as appropriate, to address and resolve any conflicts regarding use of the OCS for aquaculture, with special emphasis on OCS energy programs for resolving and documenting the proposed solution of existing conflicts. Consultation will occur when working with potential permittees during the pre-application stage of the permit

process and when evaluating potentially relevant conflicts or issues identified through the permit application review process. The RA will consult with Federal agencies, as appropriate, prior to making a decision to approve or deny a permit.

**Operational Requirements, Monitoring Requirements, and Restrictions**

Permittees must abide by operational requirements, monitoring requirements, and restrictions, as specified in the regulations applicable to aquaculture (50 CFR part 622 and 40 CFR part 451). To reduce the potential for speculative entry into the fishery, permittees are required to place 25 percent of aquaculture systems approved for use at a specific aquaculture facility in the water at the permitted site within 2 years of permit issuance, and to place cultured animals in aquaculture systems at the site within 3 years of permit issuance.

Permittees may request a 1-year extension of these deadlines in the event of a catastrophe (e.g., hurricane). Failure to comply with any of the operational requirements, monitoring requirements, or restrictions is grounds for revocation of the permit.

Fingerlings or other juvenile animals obtained for grow-out at an aquaculture facility in the EEZ must be obtained from a

hatchery located in the U.S. All broodstock used for spawning at a hatchery supplying fingerlings or other juvenile animals to an aquaculture facility in the Gulf EEZ must be certified by the hatchery owner as having been marked or tagged (e.g., dart or internal wire tag). Prior to stocking fish in approved aquaculture systems, the applicant must provide NMFS with a copy of an animal health certificate signed by an aquatic animal health expert certifying that the fish have been inspected and are visibly healthy, and that the source population tests negative for World Organization of Animal Health (OIE) pathogens specific to the cultured species and for pathogens that are identified as reportable pathogens in the National Aquatic Animal Health Plan (NAAHP). This process must be repeated for each new stocking event.

The use of biologics, pesticides, and drugs must comply with all applicable United States Department of Agriculture (USDA), EPA, and FDA requirements. Use of aquaculture feeds must be conducted in compliance with EPA feed monitoring and management guidelines (40 CFR 451.21). Applicants also must comply with all monitoring and reporting requirements specified in their EPA NPDES permit and their ACOE Section 10 permit. Additionally, NMFS requires permittees to inspect aquaculture

systems for entanglements or interactions with marine mammals, protected species, and migratory birds. The frequency of inspections will be specified by NMFS as a condition of the permit. Permittees are required to monitor and report baseline environmental survey data to NMFS in accordance with procedures specified by NMFS in guidance available on the Web site.

The RA must approve all broodstock harvest activities before they occur. At least 30 days before the date permittees intend to harvest broodstock from the Gulf EEZ or Gulf state waters, the permittee or permittee's designee must submit a request for broodstock harvest to the RA. The request must include information on the number, size, and species to be harvested, the methods, gear, and vessels to be used for capturing, holding, and transporting broodstock, the date and specific location of the intended harvest, and the location where the broodstock will be delivered. Only gear and methods specified in 50 CFR 600.725 for the respective fishery may be used for harvest--except that rod-and-reel may be used to harvest red drum. The RA may deny a request to harvest broodstock if allowable methods or gear are not proposed for use, the number of broodstock is larger than necessary for spawning and rearing activities, or based on a determination the

proposed activity is inconsistent with FMP objectives or Federal laws. The RA will provide the permittee a written determination regarding the approval or denial of the broodstock harvest request. If a broodstock harvest request is approved, the permittee will be required to submit a report to the RA within 15 days of the date of harvest summarizing the number, size, and species harvested, and identifying the location where the broodstock were captured.

#### **Remedial Actions by NMFS**

Section 622.108 of this rule provides safeguards that address two specific concerns identified by the Council during development of the FMP: pathogens and genetic issues.

Section 622.108(a)(1) provides that NMFS, in cooperation with the USDA's Animal and Plant Health Inspection Service (APHIS), may order movement restrictions and/or removal of all cultured animals upon confirmation by the APHIS reference laboratory that the cultured animals test positive for a reportable or emerging pathogen and pose a threat to the health of wild or cultured animals.

Section 622.108(a)(2) provides that NMFS may sample cultured animals to determine genetic lineage. If cultured animals are determined to be genetically engineered or

transgenic, then NMFS will order the removal of all cultured animals for which such determination applies. In conducting the genetic testing to determine that all broodstock or progeny of such broodstock are originally harvested from U.S. waters of the Gulf, are from the same population or sub-population that occurs where the facility is located, and that juveniles stocked in offshore systems are the progeny of wild broodstock, or other genetic testing necessary to carry out the requirements of the FMP, NMFS may enter into cooperative agreements with States, may delegate the testing authority to any State, or may contract with non-Federal Government entities. As a condition of the permit, NMFS may also require the permittee to contract a non-Federal Government third party approved by the RA to conduct such genetic testing if the RA agrees to accept the third party testing results. The non-Federal Government third party may not be the same entity as the permittee.

In addition to the actions specified above, NMFS has the authority to issue emergency rules to address unforeseen events that present serious conservation or management problems. See 16 U.S.C 1855(c); NMFS Policy Guidelines for the Use of Emergency Rules (62 FR 44421, August 21, 1997). An emergency rule is generally in effect for a limited time but could remain in

effect for an extended period if the rule is responding to a public health issue or an oil spill. See 16 U.S.C. 1855(c)(3)(C). If warranted under the circumstances, appropriate measures could also be established through an FMP amendment prepared by the Council, or by the Secretary of Commerce if the Council fails to develop such an amendment. Any measures established in an FMP amendment would remain in effect until modified. Additionally, in the event of a significant unexpected problem requiring urgent action to protect public health, interest, or safety, NMFS may consider withdrawing, suspending, revoking, or annulling a permit pursuant to the Administrative Procedure Act, 5 U.S.C. 558(c).

**Biological Reference Points, Status Determination Criteria,  
Annual Catch Limits and Accountability Measures**

Consistent with National Standard 1 of the Magnuson-Stevens Act and the National Standard 1 Guidelines, the FMP specifies biological reference points, status determination criteria, annual catch limits and accountability measures. The FMP establishes an annual catch limit (ACL) for offshore aquaculture in the Gulf EEZ of 64 million lb (29 million kg), round weight, which is equal to optimum yield (OY) and maximum sustainable yield (MSY) specified by the Council. This maximum level of

harvest represents the average landings of all marine species in the Gulf, except menhaden and shrimp, between 2000-2006. Also, the FMP limits a person, corporation, or other entity from producing, annually, more than 20 percent of the total annual ACL (12.8 million lb (5.8 million kg), round weight) for offshore aquaculture in the Gulf EEZ, to ensure entities do not obtain an excessive share of the ACL.

If the total annual ACL is exceeded in a given year, NMFS will publish a control date in the **Federal Register**, and entry into the aquaculture fishery may be limited or prohibited after that control date. The control date will serve as an accountability measure while the Council initiates review of the Gulf aquaculture program and biological reference points.

The FMP recognizes that thresholds for determining overfishing and overfished status are used as proxies to assess the effect of the aquaculture fishery upon wild stocks. Thus, they are not directly applicable to the cultured fish but it is conceivable that some level of aquaculture in the Gulf could result in adverse impacts to wild stocks, which could result in overfishing and depletion of such stocks. Thus, the FMP also specifies overfished and overfishing criteria established in existing FMPs for wild stocks, consistent with the provisions at

50 CFR 600.310(d)(7). These thresholds are used by NMFS to determine if offshore aquaculture in the Gulf EEZ is adversely affecting wild populations, causing them to become overfished or undergo overfishing. If aquaculture operations are determined to cause such effects, then the Council and NMFS will take action(s) that could include, but is not limited to, reducing aquaculture production levels, removing cultured animals containing pathogens, and reevaluating facility siting locations to avoid habitat degradation.

#### **Measures to Enhance Enforceability**

Permittees are required to provide NMFS personnel and authorized officers (as defined in 50 CFR 600.10) access to their aquaculture facilities and records to conduct inspections and determine compliance with applicable regulations relating to Gulf aquaculture in the EEZ. In conducting the inspections, NMFS may enter into cooperative agreements with States, may delegate the inspection authority to any State, or may contract with non-Federal Government entities. As a condition of the permit, NMFS may also require the permittee to contract a non-Federal Government third party approved by the RA to conduct such inspections if the RA agrees to accept the third party inspection results. The non-Federal Government third party may

not be the same entity as the permittee.

Permittees participating in the aquaculture program are allowed to offload cultured animals at aquaculture dealers only between 6 a.m. and 6 p.m., local time. All fish landed on shore are required to be maintained whole with heads and fins intact. Spiny lobster are required to be maintained whole with tail intact until landed ashore. Any cultured animals harvested from an aquaculture facility and being transported are required to be accompanied by the applicable bill of lading through offloading and the first point of sale.

Any person transporting cultured fingerlings or other juvenile animals from a hatchery to an aquaculture facility, other than from a hatchery that is integrated with an aquaculture facility, is required to notify NMFS at least 72 hours prior to transport. Permittees are also required to notify NMFS at least 72 hours prior to harvest of cultured animals at an aquaculture facility and notify NMFS at least 72 hours prior to the intended time of landing. The harvest notification includes the time, date, and weight of cultured animals to be harvested. The landing notification includes the time, date, and port of landing. These notifications are required to be provided to NMFS by calling the telephone number or accessing the

Web-based form on the Web site.

Any vessel transporting cultured animals to or from an aquaculture facility is required to stow fishing gear below deck or in an area where it is not normally used or readily available for fishing. Possession of any wild fish, with the exception of broodstock associated with a hatchery in the Gulf EEZ, is prohibited within the boundaries of an aquaculture facility's restricted access zone as specified in § 622.104. Except when harvesting broodstock, the possession of wild fish aboard an aquaculture operation's transport and service vessels, vehicles, or aircraft is prohibited. Stowage requirements and possession restrictions are intended to enhance enforcement by preventing the simultaneous possession of cultured and wild fish.

#### **Species Allowed for Aquaculture**

The FMP allows owners and operators of aquaculture facilities in the Gulf EEZ to culture all species native to the Gulf that are managed by the Council in a fishery management unit (FMU) under a current FMP, except those species in the shrimp and coral FMU's. As explained in the preamble to the proposed rule, prior to the FMP, offshore aquaculture in the Gulf EEZ, other than live rock aquaculture, could only be authorized by an exempted fishing permit (EFP) from NMFS. Anyone

wishing to culture species in the Gulf EEZ that are not allowable aquaculture species as specified in the FMP and at § 622.105(b) must apply for an EFP (see regulations at 50 CFR 600.745). Under the FMP, no genetically engineered or transgenic animals may be cultured in the Gulf.

### **Allowable Aquaculture Systems for Grow-out**

Aquaculture systems used for growing fish will be evaluated and approved by the RA on a case-by-case basis. The structural integrity and ability of aquaculture systems to withstand physical stresses associated with major storm events (e.g., hurricanes) will be reviewed by the RA, using engineering analyses, computer and physical oceanographic models, or other required documentation. The RA will evaluate the potential risks of aquaculture systems to essential fish habitat (EFH), endangered or threatened species, marine mammals, wild fish stocks, public health, and safety. The RA will consider the significance of any such risks in determining whether to approve or deny an aquaculture system. If the RA denies use of an aquaculture system, then the applicant will be provided a written determination from the RA of such findings. Each aquaculture system approved for use must be marked with a minimum of one properly functioning locating device (e.g.,

global positioning system device) to assist in locating the system in the event it is damaged or lost. The U.S. Coast Guard (USCG) also requires structures to be marked with lights and signals to ensure compliance with private aids to navigation (33 CFR 66.01).

### **Siting Requirements and Conditions**

Aquaculture facilities are prohibited in Gulf EEZ marine protected areas, marine reserves, habitat areas of particular concern (HAPCs), Special Management Zones, permitted artificial reef areas, and coral areas specified in 50 CFR part 622. No aquaculture facility may be sited within 1.6 nm (3 km) of another aquaculture facility. Permit sites must be twice as large as the combined area encompassed by the approved aquaculture systems to allow for best management practices such as the rotation of systems for fallowing. The RA will evaluate proposed sites on a case-by-case basis. Siting criteria include but are not limited to the following: results of the baseline environmental survey; site depth; frequency of harmful algal blooms or hypoxia; and location of the site relative to marine mammal migratory pathways, important natural habitats, and fishing grounds. The RA may deny use of a proposed aquaculture site based on a determination that the proposed site: would pose

significant risks to EFH, or to endangered or threatened species; would result in user conflicts with commercial or recreational fishermen or with other marine resource users; would pose risk to the cultured species due to low dissolved oxygen or harmful algal blooms; is not of sufficient depth for the approved aquaculture system; is characterized by substrate and currents that would inhibit the dispersal of wastes and effluents; or is otherwise inconsistent with FMP objectives or applicable Federal laws.

#### **Aquaculture Facility Restricted Access Zones**

A restricted access zone will be established for each facility. The boundaries of the restricted access zone correspond to the coordinates listed on the approved ACOE Section 10 permit for the site. Restricted access zone boundaries must be clearly marked with a floating device, such as a buoy. No recreational or commercial fishing, other than aquaculture, may occur within the restricted access zone. Only fishing vessels that have a copy of the aquaculture facility's permit with an original signature of the permittee are allowed to operate in or transit through the restricted access zone.

#### **Recordkeeping and Reporting Requirements**

Gulf aquaculture permittees are required to report to NMFS

major escapement events; findings of reportable pathogens; and entanglements or interactions with marine mammals, protected species, or migratory birds. All of these events must be reported within 24 hours of discovery of the event. Major escapement is defined as the escape, within a 24-hour period, of 10 percent of the fish from a single approved aquaculture system (e.g., one cage or one net pen) or 5 percent or more of the fish from all approved aquaculture systems combined, or the escape, within any 30-day period, of 10 percent or more of the fish from all approved aquaculture systems combined. Reportable pathogens include any OIE pathogen or pathogens that are identified as reportable pathogens in the NAAHP. If no major escapement, finding of reportable pathogen, or entanglement or interaction occurs during a given fishing year, then a permittee is required to submit by January 31 of the following year an annual report to the RA indicating no event occurred. If major escapement occurs, the permittee is required to provide to NMFS the contact and permit information for the facility at which the escapement occurred, the duration and location of escapement, the cause(s) of escapement, the quantity, size, and percent of fish that escaped, by species; and actions being taken to address the escapement and to prevent future escapements. If an entanglement

or interaction occurs, the permittee is required to submit to NMFS information on the date, time, and location of the event, the species involved, the number of mortalities or acute injuries, causes of entanglement or interaction, and steps being taken to address the entanglement or interaction. If reportable pathogens are discovered, the permittee is required to provide NMFS information on the reportable pathogen present, the percent of cultured animals infected, the findings of the aquatic animal health expert, plans for confirmatory testing, testing results (when available), and actions being taken to address the pathogen episode.

In addition to the above-mentioned reporting requirements, permittees are required to report to NMFS if there is a change to the hatchery (or hatcheries) used for obtaining fingerlings or other juvenile animals. Permittees are also required to report, to other Federal agencies, the use of new animal drugs in accordance with 40 CFR 451.3.

For recordkeeping requirements, permittees must maintain and file with NMFS valid copies of all state and Federal permits required for conducting offshore aquaculture, as well as copies of state and Federal permits for each hatchery from which fingerlings or other juvenile animals are obtained. Also,

aquaculture facilities must maintain the following records for the most recent 3-year period: monitoring reports related to aquaculture activities required by state and Federal permits; daily records of fish introduced or removed from each aquaculture system; and original or copies of feed purchase invoices and sale records. These records must be provided to NMFS or authorized officers upon request.

Aquaculture dealers are required to complete a landing transaction report when purchasing cultured animals from a Gulf aquaculture permit holder. The transaction report includes the date, time, and location of the transaction; the identities of the Gulf aquaculture permit holder, vessel transporting cultured animals to port, and dealer involved in the transaction; and the quantity, average price, and average weight of each species landed and sold.

#### **Framework Procedures**

The RA may modify MSY, OY, permit application requirements, operational requirements and restrictions, including monitoring requirements, aquaculture system requirements, siting requirements, and recordkeeping and reporting requirements in accordance with the framework procedure in the FMP.

#### **Comments and Responses**

NMFS received over 1,100 submissions from the public on *Regulations.gov* during the comment periods for the proposed rule and FMP. NMFS has identified 115 unique comments from the public submissions. These include comments responding to the eight issues NMFS identified in the public participation section of the proposed rule. Comments and responses on those eight issues are addressed in the Public Participation Comments section below.

#### *Public Participation Comments*

*Comment 1:* NMFS requested public comment on the definition of "significant risk" as it pertains to offshore aquaculture in the Gulf and whether it is a different standard than what is established under the Endangered Species Act (ESA) (this corresponds to issue 1 in the Public Participation section of the proposed rule). NMFS received several comments on this proposed definition. Several commenters stated the definition is adequate and another stated the threshold for denying permits under this definition should be increased, giving NMFS less discretion. In contrast, a few commenters requested the threshold for significant risk be lowered, thereby making it easier for NMFS to deny permit applications. One commenter also stated that "significant risk" is not defined in the ESA but the

term has been interpreted in case law; specifically, *Babbitt v. Sweet Home Chapter of Communities*, 515 U.S. 687 (1995), in which the Supreme Court ruled that actual harm must occur. Another commenter stated the term "significant risk" should focus on direct threats of actual harm, and not indirect, insignificant, discountable, or extremely unlikely harm.

*Response:* After considering all of the comments received, NMFS has determined that a more moderate threshold for ESA-listed species should be included in the definition of "significant risk." The proposed definition linked the ESA criterion to the jeopardy and adverse modification standards established in the ESA. In this final rule, NMFS adopts a revised definition that will provide the RA discretion to deny a Gulf aquaculture permit application or use of a proposed site or aquaculture system, or specify conditions for an aquaculture system, if it is determined to adversely affect ESA-listed species or their critical habitat.

This revised definition is consistent with the original definition deemed by the Council in February 2013 and makes the ESA-related criterion in the definition consistent with those for marine mammals, EFH, wild fish stocks and public health and safety. This revised definition recognizes that "significant

risk" means more than insignificant or discountable (extremely unlikely) harm, but that activities may present a "significant risk" even if they fall short of jeopardizing the continued existence of an entire species or destroying or adversely modifying their critical habitat.

NMFS does not agree that the *Sweet Home* decision is relevant to the definition of "significant risk" in this rule. That decision focused on whether the regulatory definition of "harm," which included "significant habitat modification or degradation," was reasonable and within the Department of the Interior's authority.

*Comment 2:* NMFS requested public comment on the use of the term "genetically modified organism" in the rule and whether it should be changed to "genetically engineered animal" to be consistent with terminology used by FDA (this corresponds to issue 2 in the Public Participation section of the proposed rule). NMFS also requested public comment on whether the definition of "genetically modified organism" should be removed and a definition for "genetically engineered animal" should be added to the rule, which is more consistent with the definition used by FDA (this corresponds to issue 3 in the Public Participation section of the proposed rule). NMFS received

several comments supporting these changes, one of which stated that this would result in uniformity across Federal agencies. Another commenter opposed these changes and supported the original terms and definitions, which they felt were more restrictive.

*Response:* After considering these comments, NMFS is changing the term "genetically modified organism" to "genetically engineered animal" in this final rule as this is a more scientifically precise term, more accurately describes the use of modern biotechnology, and is consistent with FDA terminology.

NMFS is also adopting the FDA definition for "genetically engineered animal," which is defined as an "animal modified by rDNA techniques, including the entire lineage of animals that contain the modification. The term 'genetically engineered animal' can refer to both animals with heritable rDNA constructs and animals with non-heritable rDNA constructs (e.g., those modifications intended to be used as gene therapy)." An animal that has been altered such that its ploidy (number of sets of chromosomes in its cells) has been changed (e.g., a triploid animal (an animal with an extra set of chromosomes in its cells)) is not considered to be genetically engineered provided

that that animal does not contain genes that have been introduced or otherwise altered by modern biotechnology.

*Comment 3:* NMFS requested public comment on whether it would be sufficiently protective to require broodstock to be collected from another population within the Gulf, rather than the same population or sub-population that occurs where the facility is located. NMFS also asked the public to provide comment on any additional costs or burdens this requirement would pose on aquaculture facilities (this corresponds to issue 4 in the Public Participation section of the proposed rule). NMFS received several comments which agreed that NMFS should keep the requirement to harvest broodstock from the same population or subpopulation where the facility is located. NMFS received comments that this requirement would be an impediment to selective breeding and the selection of traits that render individuals less fit to survive in the wild.

*Response:* NMFS has determined that it is appropriate to keep the requirement to collect broodstock from the same population or subpopulation where the facility is located. The purpose of this requirement is to ensure that the genetic make-up of cultured animals is similar to that of the wild stocks where the facility is located. This is important to eliminate

the potential for out-breeding depression caused by escaped fish interbreeding with fish from the local wild stock should escapement occur.

The extent to which there are population differences in genotypes among potential farmed species in the Gulf varies by species. Scientific information available for species likely to be cultured in the Gulf EEZ (cobia, almaco jack, red drum, red snapper) indicates that red snapper and red drum should be collected within a 62 and 82 mile (100 and 132 km), respectively, radius of the location of the offshore aquaculture facility, while cobia and almaco jack may be collected from anywhere within the Gulf in order to maintain the genetic integrity of those populations. Due to these large collection ranges, NMFS has determined that this requirement does not pose an additional burden on aquaculture operators.

NMFS does not agree that the FMP requirement that broodstock be from the same population or subpopulation where the aquaculture facility is located is an impediment to selective breeding as this requirement does not directly address selective breeding practices. NMFS is developing guidance which will address selective breeding practices which will afford sufficient protections to wild stocks, should escapement occur.

NMFS is also developing tools (e.g., Offshore Mariculture Escapes Genetics Assessment (OMEGA) model) which will allow industry and regulators to objectively evaluate the potential genetic risk(s) posed by cultured escapees.

Therefore, NMFS has not made any changes to this requirement.

*Comment 4:* NMFS requested public comment regarding whether it is necessary for facilities to provide a Notice of Harvest to NMFS 72 hours prior to harvesting cultured animals to ensure that only cultured animals are landed (this corresponds to issue 5 in the Public Participation section of the proposed rule). NMFS received several comments opposing the requirement to notify NMFS 72 hours prior to harvesting. These comments indicated that this requirement would be burdensome as harvesting may occur on a daily basis and weather conditions and other factors may impact harvest schedules.

*Response:* NMFS has determined that it is appropriate to require the Notice of Harvest. The 72-hour notification window is intended to aid law enforcement and NMFS staff by allowing them the opportunity to be present at a facility when harvesting occurs to verify that permittees are harvesting only cultured species (e.g., through genetic testing) and that they remain

within their production cap. Permittees can provide notification to NMFS either by phone or web-based form and may use this same method to provide updates on harvest times, etc. should inclement weather or other circumstances arise. This requirement was contained in the FMP and the preamble to the proposed rule and NMFS is adding it to the regulations in this final rule.

*Comment 5:* NMFS requested public comment on the additional costs, if any, of maintaining a daily record of the number of fish introduced into and number or pounds and average weight of fish removed from each approved aquaculture system, including mortalities. In addition, NMFS requested public comment on the extent to which this information aids enforcement of production quotas and auditing (this corresponds to issue 6 in the Public Participation section of the proposed rule). NMFS received one comment requesting that this requirement be maintained for enforcement purposes. NMFS did not receive any comments opposing this requirement.

*Response:* NMFS has determined that this requirement is necessary to provide the data needed to effectively enforce individual production quotas and for auditing purposes. This type of recordkeeping is standard practice in the aquaculture industry and therefore no additional costs are anticipated.

Therefore, NMFS has not made any changes to this requirement.

*Comment 6:* NMFS requested public comment on the practical utility and additional cost of the requirement to maintain original purchase invoices for feed, or copies of such invoices, for 3 years from the date of purchase in light of the recordkeeping requirement in EPA regulations at 40 CFR 451.21(g)(1) (this corresponds to issue 7 in the Public Participation section of the proposed rule). NMFS received one comment related to this issue which urged NMFS to maintain strict record-keeping requirements.

*Response:* NMFS has determined that it's appropriate to require that permittees maintain original or copies of invoices for feed for 3 years from the date of purchase. This requirement will assist NMFS and the EPA in the event that water quality problems arise as a result of the type of feed being used. Further, the EPA regulations (40 CFR 451.21(g)(1)) only require that NPDES permittees maintain records documenting the feed amounts while NMFS' requirement will provide information on the type of feed purchased as well as require permittees keep this information for 3 years. NMFS does not anticipate this requirement will result in additional costs to the applicant as the applicant will receive this information as part of their

normal business activity. This requirement was contained in the preamble to the proposed rule and NMFS is adding it to the regulations in this final rule.

*Comment 7:* NMFS requested public comment on the draft SIR which was prepared to evaluate whether there is a need for supplemental National Environmental Policy Act (NEPA) analysis on the FMP, specific to the passage of time (*i.e.*, since 2009). In the proposed rule, NMFS stated the draft SIR concludes that there are no substantial changes to the proposed action or significant new circumstances or information that require the preparation of an additional supplement to the FPEIS for the FMP (this corresponds to issue 8 in the Public Participation section of the proposed rule). NMFS received several comments supporting the SIR's conclusion that that there are no substantial changes to the proposed action or significant new circumstances or information that require the preparation of additional supplemental NEPA analyses. NMFS also received several comments which stated the SIR was inadequate and that the 2009 FMP/FPEIS should be supplemented. Some of these commenters also stated that the supplemental NEPA document should also analyze the effects of the Deepwater Horizon MC252 oil spill on the affected environment in the Gulf.

*Response:* On June 26, 2009, NMFS noticed in the **Federal Register** the availability of the FPEIS for the FMP (74 FR 30569). The Deepwater Horizon MC252 oil spill occurred on April 20, 2010, and was successfully capped on July 15, 2010. On January 25, 2013, NMFS noticed in the **Federal Register** its intent to supplement the FPEIS (SFPEIS) to consider potential changes to the environment linked to the Deepwater Horizon oil spill and determine if and how such changes may affect the actions and alternatives analyzed in the FMP/FPEIS (78 FR 5403). NMFS noticed the availability of the draft SFPEIS in the **Federal Register** on February 28, 2014 (79 FR 11428), and published the notice of availability of the final SFPEIS on July 2, 2015 (80 FR 38199).

The comments which stated the SIR was inadequate and the 2009 FMP/FPEIS should be further supplemented did not identify any new circumstances, information or impacts that are uncertain or that differ from those described in the FMP/FPEIS and SFPEIS. NMFS determined that no new or additional supplemental NEPA analysis is necessary, and finalized the SIR on July 6, 2015. The FPEIS, SFPEIS and SIR can be found on the Web site.

#### *General Comments*

*Comment 8:* There is no support in the Magnuson-Stevens Act

for NMFS's interpretation that Congress intended the term "fishing," and thus the term "harvesting," to include the culture of fish.

*Response:* NMFS disagrees. As discussed in the preamble to the proposed rule, it has been NOAA's long-standing interpretation that the Magnuson-Stevens Act provides NMFS the authority to regulate aquaculture as "fishing" and, thus, that regional fishery management councils have the authority to prepare fishery management plans covering all aspects of aquaculture in EEZ waters under their respective jurisdictions. NMFS also, long ago, implemented the Council's Coral FMP, which includes provisions for the aquaculture of "live rock," and remains in effect currently.

This interpretation is based on the Magnuson-Stevens Act definitions of the terms "fishery" (16 U.S.C. 1802(13)), "stock of fish" (16 U.S.C. 1802(42)), and "fishing" (16 U.S.C. 1802(16)). Because the Act does not define the term "harvesting," NMFS looks to the ordinary meaning of that word. "Harvest" is "the act or process of gathering in a crop." Merriam-Webster Dictionary (2011). "Crop" is defined as "the produce of cultivated plants, esp. cereals, vegetables, and fruit;" "the amount of such produce in any particular season;"

or "the yield of some other farm produce: the lamb crop." World English Dictionary (2011). Together, these definitions provide a sound basis for concluding that "fishing" includes the catch, take, or harvest of cultured stocks, and thus, that aquaculture activities are within the scope of the term "fishery" as used in the Magnuson-Stevens Act.

Further, because the definition of "fishing" includes not just harvesting itself, but also activities expected to result in harvesting fish, and operations at sea in support of such activities, NMFS has determined there is a sound basis for concluding that "fishing" as used in the Magnuson-Stevens Act encompasses, in addition to harvesting the fish from aquaculture operations, other activities (e.g., stocking and growing fish in offshore systems) at sea that are integral to aquaculture operations.

*Comment 9:* Neither NMFS nor the Council have authority to develop a permitting regime for aquaculture facilities, because such facilities are neither "fishing vessels" under the Magnuson-Stevens Act, nor are they "vessels" under 1 U.S.C. 3.

*Response:* NMFS disagrees the Council lacks the authority to permit aquaculture facilities in the Gulf EEZ. Contrary to the statement in the comment, the Gulf aquaculture permit is not

limited to permitting the facility. Under § 622.101(a) and (c) of this final rule, a Gulf aquaculture permit is necessary to deploy the gear, operate the facility, sell or attempt to sell cultured species, possess or transfer fish in or from the Gulf EEZ, operate any vessels, vehicle, or aircraft in support of the aquaculture activity, and harvest and retain on board a vessel live wild broodstock. Therefore, the permit applies to fishing vessels, gear (the aquaculture systems), and other fundamental aspects of the fishery.

The Magnuson-Stevens Act allows the Council to require a permit with respect to any fishing vessel (section 303(b)(1)), to prohibit, limit, condition, or require the use of specified types and quantities of fishing gear (section 303(b)(4)), and to “prescribe such other measures, requirements, or conditions and restrictions as are determined to be necessary and appropriate for the conservation and management of the fishery” (section 303(b)(14)). Together, these provisions provide the Council the authority to require a permit to engage in aquaculture in the Gulf EEZ.

*Comment 10:* NMFS should disapprove the rule because it was submitted in 2013 and not simultaneously with the FMP in 2009.

*Response:* The Council submitted proposed regulations in

2009 at the same time as the FMP. However, before NMFS published the proposed rule, additional language was added to the regulations. The Council reviewed these changes in February 2013 and deemed those changes as necessary and appropriate for purposes of implementing the FMP. NMFS has determined that this procedure was consistent with the requirements of the Magnuson-Stevens Act.

*Comment 11:* The FMP, which entered into effect in September 2009 is unlawful because it contains significant differences from the version approved by the Council in January 2009, therefore, the Secretary cannot lawfully implement the FMP.

*Response:* NMFS disagrees that the editorial changes made to the FMP between the time it was approved by the Council and took effect were significant or render the FMP unlawful. The Council, when approving the FMP, was aware that staff would have usual editorial license to correct errors and make non-substantive changes to language in the FMP to improve the readability of the document. Thus, consistent with this understanding, NMFS and Council staff made several editorial changes to the FMP following Council approval in January 2009, but no substantive changes were made prior to the Council's formal submission of the FMP to the Secretary of Commerce for review.

*Comment 12:* The proposed rule is inconsistent with the Magnuson-Stevens Act because it does not contain a link to the final FMP, which includes changes deemed by the Council in February 2013. In addition, the proposed rule failed to provide a list of the technical changes that the Secretary made to the FMP.

*Response:* The proposed rule did contain a link to the final FMP in the ADDRESSES section. No changes were made to the final FMP after it was transmitted to the Secretary of Commerce for review and implementation. Since the FMP was finalized, NMFS made several changes to the proposed regulations. These changes clarified the existing FMP requirements but did not change the substantive requirements of the FMP. In February 2013, the Council reviewed and deemed these changes as necessary and appropriate to carry out the actions in the FMP/FPEIS.

*Comment 13:* The Secretary acted outside of his authority under the Magnuson-Stevens Act by allowing the FMP to enter into effect by operation of law, because the FMP fails to demonstrate that it is necessary for the conservation and management of Gulf fisheries. Another commenter stated the Council acted outside its authority when preparing the FMP for the same reason.

*Response:* NMFS disagrees. Section 304 of the Magnuson-Stevens Act specifies that "If the Secretary does not notify a Council within 30 days of the end of the comment period of the approval, disapproval, or partial approval of a plan or amendment, then such plan or amendment shall take effect as if approved." Because the Secretary did not take action at the end of the comment period, the FMP entered into effect by operation of law, rather than through Secretarial action. This was the reasoning the Court applied when it ruled, in litigation brought after the FMP took effect by operation of law, which included the arguments contained in this comment, there was no final agency action. See the response to Comment 8, above, with respect to the authority to manage aquaculture as fishing under the Magnuson-Stevens Act.

*Comment 14:* The Council and NMFS have failed to evaluate whether the FMP is consistent with NOAA's 2011 Marine Aquaculture Policy.

*Response:* NMFS disagrees. In June 2011, NMFS completed an internal consistency analysis, which found that the FMP is consistent with NOAA's 2011 Marine Aquaculture Policy. A copy of this analysis can be found on the Web site.

*Comment 15:* The FMP and proposed rule violate the Public

Trust Doctrine by authorizing NMFS to confer exclusive property rights for use in aquaculture.

*Response:* NMFS disagrees. The public trust doctrine is not implicated by the FMP or the implementing regulations, which NMFS has determined are consistent with the Magnuson-Stevens Act and other applicable law. Further, the FMP and rule do not authorize NMFS to confer exclusive property rights for use in aquaculture. A Gulf aquaculture permit only authorizes the use of a particular site for the duration of the permit and may be revoked, suspended, or modified pursuant to enforcement proceedings under subpart D of 15 CFR part 904.

*Comment 16:* The final rule should outline specific parameters for the baseline environmental survey (formerly referred to as the baseline environmental assessment).

*Response:* NMFS is currently working with other Federal permitting agencies to develop guidance for the baseline environmental survey. This document will be made available on the Web site when the rule becomes effective. Potential applicants are encouraged to contact NMFS and other Federal regulatory agencies early in the permit application process with any questions about the guidance document.

*Comment 17:* NOAA's 2011 Marine Aquaculture Policy mentions

the culture of non-native species may be possible if the best available science demonstrates it would not cause undue harm and this option should also be allowed in this rule. The rule should also allow culture of species with lesser levels of environmental impact, such as native shellfish, and encourage the use of multi-trophic aquaculture systems which use plants.

*Response:* NMFS disagrees that the culture of non-native species should be allowed. The Council considered an alternative that would have allowed the culture of any species, including those that are non-native to the Gulf (Action 4). However, the Council's Ad Hoc Aquaculture Advisory Panel opposed the use of non-native species for aquaculture. As explained in the FMP, if non-native species were allowed to be cultured in the Gulf EEZ and some escaped, this could have negative environmental impacts by introducing competition with wild stocks, changing community structure and food web dynamics, and modifying genetic structure if mating occurred with wild stocks. For this reason, the Council determined, and NMFS agrees, that it is appropriate to prohibit the culture of non-native species in the FMP.

With respect to the culture of shellfish and plants, plants are not managed by the Council and are therefore not included in the list of species allowed for culture under this rule. The

Council does manage shrimp but excluded shrimp from the allowable species, because the Council did not expect offshore aquaculture of shrimp to be cost effective. The only other shellfish species that is managed by the Council and could be cultured under the FMP is spiny lobster. Multi-trophic aquaculture systems that use allowable species are encouraged.

*Comment 18:* NMFS failed to comply with the National Marine Sanctuaries Act, which requires consultation when an agency action, whether internal or external to a national marine sanctuary, is likely to destroy, cause the loss of, or injure any sanctuary resources. Because the FMP and rule do not prohibit offshore aquaculture in or adjacent to designated marine sanctuaries and offshore aquaculture is likely to result in significant harm to the Gulf Coast environment, NMFS was required to consult with the Office of National Marine Sanctuaries and failed to do so.

*Response:* NMFS disagrees that consultation under the National Marine Sanctuaries Act is necessary. The Council considered prohibiting offshore marine aquaculture in marine sanctuaries, but ultimately rejected this alternative so that each marine sanctuary can evaluate whether marine offshore aquaculture is compatible with their management plan. This will

allow individual consideration of proposed sites and an evaluation by the experts in the Office of National Marine Sanctuaries to determine whether the activity can be permitted under the applicable provisions of the National Marine Sanctuaries Act and the sanctuary regulations. During the permit review and approval process, the RA will also evaluate any proposed site that is adjacent to a marine sanctuary, as required under § 622.103(a)(4), and will consult with the Office of National Marine Sanctuaries if appropriate.

*Comment 19:* NMFS missed statutory deadlines when publishing the notice of availability for the FMP. Therefore, the Council and NMFS must reinitiate the rulemaking process and properly follow the statutory timelines.

*Response:* The transmittal date for the FMP was May 29, 2009, and the notice of availability published on June 4, 2009. This publication schedule is consistent with the timelines set out in § 304(a) of the Magnuson-Stevens Act.

*Comment 20:* Offshore aquaculture regulations promulgated in the Gulf should apply to all U.S. EEZ waters.

*Response:* Neither the Council nor NMFS has the authority under the Magnuson-Stevens Act to require that the regulations in this final rule apply to all U.S. EEZ waters. The Magnuson-

Stevens Act established 8 regional fishery management Councils that have specified jurisdictions. The FMP was developed by the Council and implemented by NMFS to regulate offshore aquaculture in the Gulf EEZ. Other Councils may decide to develop their own regulations for offshore aquaculture in EEZ waters under their jurisdiction.

*Comment 21:* The definitions of "aquaculture" and "aquaculture facility" in the rule refer to "propagation and rearing" which would require both activities to be conducted to qualify as an aquaculture activity. This should be changed to make it clear that an activity is "aquaculture" under this rule if it involves either propagation or rearing.

*Response:* NMFS agrees that using the phrase "propagation and rearing" could be interpreted to require both activities. Therefore, NMFS has changed the phrase "propagation and rearing" in the definition of "aquaculture" to the phrase "propagation or rearing". In addition, NMFS has changed the phrase "hold, propagate, and rear" in the definition of "aquaculture facility" to the phrase "hold, propagate, or rear" for the same reasons.

*Comment 22:* The proposed rule is inconsistent with the FMP as it omits "same population or subpopulation" in § 622.101(a)(2)(xiii).

*Response:* NMFS resolved the inconsistency by adding that language to § 622.101(a)(2)(xiii) of this final rule. The language was contained in the FMP and discussed in the preamble of the proposed rule, however, it was not included in the proposed codified text. Based on public comment, NMFS determined this should be added to the regulations in this final rule.

*Comment 23:* Stocking densities in offshore aquaculture systems should be limited to levels that do not harm marine ecosystems.

*Response:* NMFS does not specify stocking limits for offshore aquaculture systems. However, NMFS will consider site size, location, baseline environmental survey data as well as the amount of animals cultured at each site when reviewing permit applications. NMFS may deny a permit or a particular site if it would pose significant risks to marine resources.

*Comment 24:* The FMP should specify a strategy for regulating the occupational safety and health of those employed by offshore aquaculture operations, and provide a mechanism to monitor workplace conditions and health outcomes.

*Response:* The U.S. Department of Labor's Occupational Safety and Health Administration is the main Federal agency charged with setting and enforcing standards under the

Occupational Safety and Health Act of 1970. Thus, issues related to the occupational safety and health of those employed by offshore aquaculture operations are outside NMFS' jurisdiction and the scope of this rulemaking, and not addressed here.

#### *National Standards*

*Comment 25:* The FMP fails to meet the requirements of National Standard 1 of the Magnuson-Stevens Act because the definition of MSY for cultured species in the FMP is impermissible and because neither the FMP nor regulations demonstrate how the aquaculture permitting program will reduce fishing mortality and increase OY. To the contrary, the FMP might increase mortality from spread of disease and increase the catch of prey species to feed captive fish.

*Response:* NMFS disagrees. National Standard 1 requires conservation and management measures to prevent overfishing while achieving, on a continuing basis, the OY from the fishery (16 U.S.C. 1851(a)(1)). NMFS' implementing guidelines at 50 CFR 600.310 set out standard approaches for specifying MSY, OY and other parameters to be used in assessing the performance of fisheries relative to this mandate, but also recognize there may be circumstances, including harvests from aquaculture operations, which do not fit the standard approaches. In those

circumstances, the guidelines provide the councils flexibility to propose alternative approaches for satisfying the National Standard 1 requirements.

Sections 4 and 6 of the FMP explain and analyze the alternative approaches the Council considered to meet the National Standard 1 mandate. Since aquaculture is essentially a farming operation, all animals cultured are intended for harvest and there is no need to leave cultured animals in aquaculture systems to support future generations and guard against long-term depletion. However, it is conceivable that some level of aquaculture in the Gulf could adversely impact wild stocks or the marine environment. Therefore, the Council determined, and NMFS agrees, the most logical approach is to define management reference points and status determination criteria for the aquaculture fishery in a way that is intended to constrain production below that critical threshold level until we obtain more information about the environmental impacts of aquaculture and the production capacity of the Gulf.

The resulting MSY and OY specified in the FMP will increase the seafood production potential of wild stocks, their contributions to national, regional, and local economies, and their capacity to meet the Nation's nutritional needs. The FMP's

reliance on existing overfished and overfishing criteria established in FMPs for wild stocks will help to ensure offshore aquaculture, including broodstock harvest operations, in the Gulf EEZ does not adversely affect wild stocks by spreading disease or other factors, causing them to undergo overfishing or become overfished.

*Comment 26:* The FMP violates the allocation requirements of National Standard 4 of the Magnuson-Stevens Act.

Response: NMFS disagrees. National Standard 4 states that, if it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be (1) fair and equitable to all such fishermen; (2) reasonably calculated to promote conservation; and (3) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges (16 U.S.C 1851(a)(4)).

NMFS' implementing guidelines at 50 CFR 600.325(c) define an "allocation" or "assignment" of fishing privileges as a direct and deliberate distribution of the opportunity to participate in a fishery among identifiable, discrete user groups or individuals. The guidelines also state that, to be fair and equitable, any allocation should be rationally connected to the achievement of OY; to promote conservation,

allocations may encourage a rational, more easily managed use of the resource; and, to avoid excessive shares, allocations must be designed to deter any person or other entity from acquiring an excessive share of fishing privileges.

The FMP provides that all U.S. citizens and permanent resident aliens are eligible to apply for a Gulf aquaculture permit. The only factors limiting participation are permitting requirements, which apply equally to all applicants, and a maximum annual production cap. The maximum annual production cap is intended to promote conservation by helping to responsibly manage the development of the offshore aquaculture industry while we obtain more information about the number and size of aquaculture operations, the production capacity of various aquaculture systems, and the environmental impacts and economic sustainability of aquaculture. Also, the FMP limits persons, corporations, and other entities from producing, annually, more than 20 percent of the production cap to prevent any one entity from obtaining an excessive share of fishing privileges, and inordinate control by buyers and sellers that would not otherwise exist.

*Comment 27:* The FMP fails to meet the requirements of National Standard 5 of the Magnuson-Stevens Act because neither

the FMP nor the implementing regulations address a serious management or conservation purpose. Rather, the real purpose of the FMP and implementing regulations is economic allocation (*i.e.*, the transfer of fishing rights to aquaculturists).

*Response:* NMFS disagrees with this interpretation of National Standard 5, which requires conservation and management measures to promote efficiency in the use of fishery resources, where practicable, except that no such measure will have economic allocation as its sole purpose (16 U.S.C 1851(a)(5)).

Even so, the conservation and management need for the FMP is articulated in the primary goal, which is to increase the MSY and OY of Federal fisheries in the Gulf by supplementing the harvest of wild caught species with cultured product. As explained in the FMP, supplementing the harvest of domestic fisheries with cultured product will help the U.S. to meet consumers' growing demand for seafood and may reduce the Nation's dependence on seafood imports. The MSY and OY of each Council-managed fishery are currently limited by each fishery's biological potential. However, establishing an aquaculture fishery would increase total yield above and beyond that which can be produced solely from wild stocks. Increasing the seafood production potential of these fisheries will increase their

contributions to national, regional, and local economies, and their capacity to meet the Nation's nutritional needs.

Further, the FMP does not authorize NMFS to confer exclusive property rights for use in aquaculture. A Gulf aquaculture permit only authorizes the use of a particular site for the duration of a permit and may be revoked, suspended, or modified pursuant to enforcement proceedings under subpart D of 15 CFR part 904.

*Comment 28:* The FMP violates National Standard 8 of the Magnuson-Stevens Act because it fails to take into account the importance of fishery resources to fishing communities, and does not, to the extent practicable, minimize adverse economic impacts on such communities. The plan does not demonstrate that offshore aquaculture will prevent overfishing or rebuild fisheries and is almost certain to adversely impact fishing communities.

*Response:* NMFS disagrees. National Standard 8 provides that conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities to (A) provide for the sustained

participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities (16 U.S.C 1851(a)(8)).

The Gulf fishing communities potentially affected by this action are extensively described in the Gulf Council's 2004 and 2005 EFH Environmental Impact Statements (EISs), and the permitting, operational, monitoring, and reporting requirements of the FMP are designed to achieve the conservation objectives of the FMP and the Magnuson-Stevens Act (including preventing overfishing and rebuilding overfished wild stocks), while minimizing adverse economic impacts on those communities to the extent practicable.

The potential impacts of the FMP on fishing communities are discussed in Sections 4, 5.4, 6, 7, and 8 of the FMP. Depending on the extent to which aquaculture products compete with landings from domestic fisheries, fishing communities could experience adverse effects, such as loss of jobs and revenue due to decreased prices. However, if the aquaculture products are primarily bound for export with little to no impact on domestic supply of traditionally landed species, fishing communities, especially dealers and processors, could benefit from increased jobs and revenues. Moreover, if domestic aquaculture products

compete with imports of aquaculture product, there could be a decrease in imported seafood and simultaneously an increase in economic benefits that derive from an increase in net exports. However, the likelihood of net beneficial or adverse impacts occurring would depend on the relative prices, quality and quantity of aquaculture product, and many other factors influencing domestic and international market demand of both farmed and wild-caught species.

Since aquaculture is essentially a farming operation, all animals cultured are intended for harvest and cannot undergo overfishing or become overfished. Offshore aquaculture may help reduce fishing mortality on wild stocks by providing an alternate source of food and relieving some fishing pressure on wild stocks.

*Comment 29:* The FMP fails to meet the requirements of National Standard 9 of the Magnuson-Stevens Act because it fails to adequately discuss bycatch and because it attempts to limit bycatch through NMFS evaluation of the aquaculture system and reporting requirements rather than requiring NMFS to reject aquaculture systems with the highest potential for bycatch and authorizing the agency to revoke or modify permits of those facilities that have high levels of bycatch.

*Response:* NMFS disagrees. National Standard 9 requires conservation and management measures that, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch (16 U.S.C. 1851(a)(9)). The FMP and this final rule contain a number of measures aimed at minimizing the bycatch of aquaculture operations to the extent practicable.

The RA is required to review proposed aquaculture systems on a case-specific basis and may deny the use of a system if it poses significant risk to endangered or threatened species, marine mammals, other marine resources, and is otherwise inconsistent with National Standard 9 or other applicable Federal law.

This final rule will allow NMFS to minimize any potential adverse impacts of broodstock collection by requiring permittees to obtain the RA's approval prior to each collection event. Collection requests must include information on the number, size, and species to be harvested, the methods, gear, and vessels to be used for capturing, holding, and transporting broodstock, the date and specific location of the intended harvest, and the location where the broodstock will be delivered. The RA may deny a request to harvest broodstock if

allowable methods or gear are not proposed for use, the number of broodstock is larger than necessary for spawning and rearing activities, or if the proposed activity is otherwise inconsistent with National Standard 9 or other Federal law.

Also, permittees are required to inspect aquaculture systems for entanglements and interactions with marine mammals, protected species, and migratory birds at a frequency specified as a condition of their permit, and to report any entanglements or other interactions to NMFS.

#### *NEPA Analyses*

*Comment 30:* The SFPEIS violates NEPA because it was not presented to the Council, did not inform the Council's decision to approve the FMP, lacked meaningful public input, fails to include and assess substantive changes NMFS made to the FMP, and was not finalized in a timely manner.

*Response:* NMFS disagrees. The SFPEIS was prepared to analyze the effects of the Deepwater Horizon MC252 oil spill, which occurred after the Council approved the FMP. NMFS provided the Council the opportunity to review and comment on the draft SFPEIS during the 45-day public comment period, which was noticed in the **Federal Register** on February 28, 2014 (79 FR 11428). NMFS received 15 distinct comments on the draft SFPEIS

and addressed those comments in the final SFPEIS, which is available on the Web site. The Council has the authority and discretion to revisit and modify the FMP at any time should the Council determine there is a conservation and management need that has not been addressed.

NMFS did not make any substantive changes to the FMP that would require additional analysis in the SFPEIS. When approving the FMP, the Council was aware that staff would have usual editorial license to correct errors and improve the readability of the document. Thus, consistent with this understanding, NMFS and Council staff made several editorial changes to the FMP following Council approval in January 2009, but no substantive changes were made prior to the Council's formal submission of the FMP to the Secretary of Commerce for review.

In regard to the timeliness of the SFPEIS, NMFS finalized the document within approximately two years of the notice of intent to prepare an SFPEIS. This schedule is not atypical for such documents. Section 1502.9 of the CEQ regulations implementing NEPA specifies under what conditions agencies must supplement an EIS, but does not dictate specific timeframes in regard to preparation of such documents.

*Comment 31:* One commenter stated the FMP/FPEIS is

inconsistent with NEPA because the "Purpose and Need" section of the document is too narrowly defined, rendering the agency's alternatives analysis meaningless. Another commenter also stated the FMP/FPEIS does not contain an adequate impact analysis and fails to evaluate a reasonable number of alternatives.

*Response:* NMFS disagrees that the purpose and need of the FMP/FPEIS is too narrowly defined to support a reasonable range of alternatives and that the impact analysis is inadequate.

The stated purpose of the FMP is to maximize benefits to the Nation by establishing a regional permitting process to manage the development of an environmentally sound and economically sustainable aquaculture fishery in the Gulf EEZ. This purpose is not so narrow as to define competing reasonable alternatives out of consideration. The Council initiated this action to provide a programmatic approach to evaluating the impacts of aquaculture proposals in the Gulf.

The FPEIS analyzes a wide range of alternatives considered by the Council and NMFS related to all aspects of the aquaculture permitting program, including No Action alternatives for each action analyzed in the FPEIS. The proposed action to establish a permit program for aquaculture facilities in the Gulf EEZ considered a No Action alternative that would maintain

the status quo (an exempted fishing permit would be required to conduct aquaculture in the Gulf EEZ), as well as reasonable range of alternatives to maintaining the status quo, including one that defines the permit program in this final rule and one that would have required separate permits for siting and operations. Also, the FMP/FPEIS explores a number of other alternatives related to permit duration; operational requirements and restrictions; species to be cultured and systems to be used; siting requirements and restrictions; restricted access zones; reporting and recordkeeping requirements; management reference points; and framework procedures.

Section 6.0 of the FMP/FPEIS contains a detailed comparative analysis of the direct and indirect effects of the proposed action and all alternatives on the affected physical, biological, ecological, economic, social, and administrative environments described in Section 5.0 of the document. Additional alternatives the Council considered during the scoping and public review process, but did not retain for full analysis, are described in Appendix D, along with the rationale for eliminating them from detailed study.

*Comment 32:* The proposed rule should have referenced the

NEPA analysis for this action.

*Response:* The proposed rule indicated that NMFS prepared a FPEIS in association with the FMP to satisfy NEPA. Also, the proposed rule stated that NMFS was preparing a SFPEIS to consider new information related to the Deepwater Horizon MC252 oil spill. The proposed rule specifically requested comments on a draft SIR NMFS prepared to evaluate whether there is a need for additional supplemental NEPA analysis on the FPEIS specific to the passage of time in accordance with 40 CFR 1502.9(c).

*Comment 33:* The FMP is deficient because it fails to consider socio-economic impacts; environmental impacts related to benthic and water quality impacts, ocean ecosystem impacts, escapes, diseases and parasites, overfishing of forage fish species, and human health; new information relevant to the effects analysis; reasonable mitigation measures; and recent studies which address the ecological, economic, and cultural problems associated with aquaculture.

*Response:* NMFS disagrees. Section 6.0 of the FMP/FPEIS analyzes the direct, indirect, and cumulative effects of marine aquaculture on the environment, including the potential economic and social effects of the fishery on domestic fisheries and fishing communities; potential user conflicts; the effects of

aquaculture systems and effluent on surrounding habitats and ecosystems; potential interactions with wildlife; the effects of culturing species, including harvesting prey species for feed, and escapes on local wild stocks; the effects of diseases and parasites on aquatic animal health; and the effects of cultured species on human health, with respect to the use of antibiotics and consumption of cultured fish and the health benefits of consuming seafood. Section 6.1.4 summarizes the mitigation measures incorporated into each proposed action, and concludes those measures sufficiently mitigate the impacts of offshore marine aquaculture.

In regard to the lack of recent information in the FMP, the FMP was finalized in 2009, however, the SFPEIS and SIR evaluated recent studies and new information relevant to the effects analysis and determined no changes to the proposed actions are warranted. Those documents are available on the Web site.

*Comment 34:* The proposed rule places the responsibility for conducting an environmental assessment on each permit applicant.

*Response:* The proposed rule stated that applicants for Gulf aquaculture permits are required to submit environmental assessments to NMFS, along with their applications. The term "environmental assessment" used in that context refers to

baseline environmental assessments, which will contain survey and data requirements that NMFS will use to review and approve proposed aquaculture sites during the permit application process.

Because the term "environmental assessment" is also a common NEPA term, NMFS changed the term "baseline environmental assessment" to "baseline environmental survey" in this final rule to avoid confusion. The baseline environmental survey requirement is separate from any additional NEPA analysis which NMFS may undertake for individual aquaculture applications during the permit review process.

*Comment 35:* The application of NEPA to the aquaculture permit approval process established in the FMP and this final rule is questionable. Specifically, it is unclear whether the process constitutes a major Federal action subject to NEPA and whether the "tiering" process established by the FPEIS precludes the use of EISs in evaluating individual Gulf aquaculture permit applications. In addition, a separate NEPA review should be conducted related to the harvest of fish from offshore systems, which requires a separate approval from NMFS and is therefore a separate agency action.

*Response:* The implementation of the Gulf aquaculture FMP is

a major Federal action subject to NEPA. The FPEIS and SFPEIS serve as the basis for evaluating the effects of issuing permits to Gulf aquaculture operations. NMFS intends to evaluate each aquaculture application during the review and approval process to determine whether it is adequately supported by the FPEIS and SFPEIS and, therefore, NEPA compliant. If an application proposes an action, including activities related to the harvest of fish from offshore systems, which substantially differs from the FMP in a way that is relevant to environmental concerns, or presents significant new circumstances or information relevant to environmental concerns, then NMFS will further supplement the FPEIS, consistent with Council on Environmental Quality regulations at 40 CFR 1502.9(c). If NMFS determines that additional supplemental NEPA analysis is needed, then that analysis will likely "tier" off the analyses in the FPEIS and SFPEIS, and would be prepared, circulated and filed in the same fashion (exclusive of scoping) as the draft and final PEIS and SPEIS.

*Comment 36:* The Council violated the Magnuson-Stevens Act and NEPA when they deemed the changes NMFS made to the proposed regulations in 2013 because they did not revisit and amend the

FMP before they deemed the regulations and because the SFPEIS had not yet been finalized before they deemed the regulations.

*Response:* NMFS disagrees that the Magnuson-Stevens Act requires the Council to revisit and amend the FMP before deeming changes to the implementing regulations. Before publishing the proposed regulations the Council submitted along with the FMP in 2009, NMFS added some additional language to clarify the FMP requirements. That language did not change any FMP requirements. Because the regulations and FMP are consistent, the Council did not need to consider amending the FMP to resolve any inconsistencies when they deemed the additional language as necessary and appropriate for implementing the FMP.

Also, NMFS disagrees that NEPA requires the SFPEIS to have been finalized before the Council deemed changes to the regulations implementing the FMP. Council on Environmental Quality regulations at § 1502.9(c) require federal agencies to supplement EISs if they make substantial changes to the proposed action that are relevant to environmental concerns or if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. As stated in the notice of intent published in the **Federal Register** on January 25, 2013, NMFS prepared the

SFPEIS to evaluate how the Deepwater Horizon MC252 oil spill may have changed the affected environment *since* the FMP took effect and whether there is a resulting need to revisit the FMP (78 FR 5403). Because the regulations deemed by the Council simply implement the existing FMP, the analysis in the SFPEIS was not relevant to the Council action to deem those regulations.

The SFPEIS, which published in the **Federal Register** on July 2, 2015, concludes, based on the information known at this time, there is no reason to believe the conclusions reached in the FMP/FPEIS have been altered or changed due to the oil spill and, therefore, there is no need to evaluate other actions or alternatives that differ from those considered in the original FPEIS (80 FR 38199). Through the Natural Resource Damage Assessment process, NOAA and the other trustees continue to work toward a better understanding of the effects of the Deepwater Horizon MC252 oil spill on the environment and resources of the northern Gulf. The Council may revisit the FMP at any time should they determine there is a conservation and management need that has not been addressed.

*Comment 37:* NMFS failed to satisfy the procedural requirement of NEPA by not publishing a record of decision (ROD) within 30 days of finalizing the FPEIS.

*Response:* NEPA does not require that an agency publish a ROD within 30 days of finalizing an EIS. Per 40 CFR 1505.2, an agency is required to publish the ROD at the time of its decision. The only timing limitations with respect to publishing the ROD are set out in 40 CFR 1506.10(b), which states that this cannot occur until the later of 90 days after publication of a notice of a draft EIS or 30 days after publication of a notice of a final EIS.

#### *Gulf Aquaculture Permitting Process and Requirements*

*Comment 38:* The final rule should explain the regulatory framework for other Federal agencies for permitting offshore aquaculture operations.

*Response:* NMFS disagrees that it is necessary to explain in this final rule the regulatory framework of other Federal agencies for permitting offshore aquaculture operations. Section 10.0 of the FMP outlines other applicable Federal laws in relation to offshore aquaculture facilities. In addition, the National Science and Technology Council's Committee on Science's Interagency Working Group on Aquaculture (formerly known as the Joint Subcommittee on Aquaculture) established a Regulatory Task Force to better streamline and coordinate the Federal aquaculture permitting processes, and that Working Group is

developing a guidance document that outlines the various permitting responsibilities and authorities of Federal agencies for offshore aquaculture operations in the Gulf EEZ. This document will be made available on the Web site when the rule becomes effective.

*Comment 39:* The criteria for Gulf aquaculture permit renewals should be explicitly stated.

*Response:* Section 622.101(d)(6) of the final rule states the requirements and timing criteria for permit renewals. Applicants must submit a completed renewal application form and all required supporting documentation to the RA at least 120 days and 30 days prior to the date they desire the aquaculture permit or aquaculture dealer permit renewal to take effect, respectively. The application forms will indicate the specific information and documentation required, which will be a sub-set of the information and documentation required for initial issuance of the permit as specified in § 622.101(a)(2) of this final rule. NMFS considers compliance with recordkeeping and reporting requirements (including annual reports) as specified in the regulations as information necessary for administration of the permit, and may decline to process a renewal request until all the applicable requirements are met. Further, as

stated in § 622.101(d)(8), a permit application may be denied in accordance with the procedures governing enforcement-related permit sanctions and denials found at subpart D of 15 CFR part 904.

*Comment 40:* The requirement that permittees deploy at least 25 percent of aquaculture systems within 2 years of permit issuance and stock juveniles into these systems within 3 years of permit issuance does not take into account the long lead times required to establish an aquaculture operation. NMFS should allow at least 5 years for these activities or require permittees to submit a site development plan and ensure that certain milestones are met.

*Response:* The Council determined, and NMFS agrees, the 2- and 3-year time requirements for deploying systems and stocking juveniles, respectively, were considered reasonable for an aquaculture facility to begin operation.

Permittees may request a 1-year extension of these deadlines in the event of a catastrophe (e.g., hurricane). The RA will approve or deny the extension request after determining if catastrophic conditions exist and whether or not the permittee was affected by the catastrophic conditions. The RA

will provide the determination and the basis for it, in writing to the permittee.

*Comment 41:* NMFS should implement a streamlined permitting process with other Federal agencies to reduce any conflicting or duplicative requirements. Additionally, a Memorandum of Understanding (MOU) should be developed between the appropriate Federal agencies, and agencies should be provided adequate time and resources to build enforcement capacity.

*Response:* NOAA chairs the Interagency Working Group on Aquaculture's Regulatory Task Force, which is charged with coordinating Federal aquaculture permitting processes to reduce duplication and streamline permitting processes. As part of that effort, NMFS and other Federal agencies are developing an interagency MOU to facilitate the needed coordination.

*Comment 42:* There should be at least a 60-day public comment period on each Gulf aquaculture permit application. Another comment stated that any public comment period requirement is burdensome and unnecessary.

*Response:* The Council determined, and NMFS agrees, that, as a general rule, a 45-day comment period is sufficient for purposes of commenting on individual aquaculture applications because this provides the public ample time to review and

comment on applications without unduly delaying the review process.

NMFS disagrees that the comment period is burdensome and unnecessary. The public comment period on individual aquaculture applications is a critical component of the approval process. Public comments received on individual applications may allow NMFS to identify potential user conflicts and other issues that may be relevant to NMFS' decision regarding whether to approve a permit. Facilitating public participation in the decision to issue a Gulf aquaculture permit is an important part of the process that will improve NMFS' decision making without unduly burdening the permit applicant.

*Comment 43:* The final rule should direct NMFS to consider all relevant ecological factors during the permit review process.

*Response:* NMFS agrees that it is important to consider relevant ecological factors during the permit review process and has determined that the final rule requires this consideration. As specified in §§ 622.103(a)(4) and 622.105(a), the RA will evaluate each proposed site, and each proposed system and its operations, during the permit review process. NMFS may deny use of a site or a system if it is determined to pose a significant

risk to wild fish stocks, EFH, endangered or threatened species, or marine mammals, will result in user conflicts with commercial or recreational fishermen, other marine resource users, or the OCS energy program, if the depth of the site is not sufficient for the allowable aquaculture system, substrate and currents at the site will inhibit the dispersal of wastes and effluents, the site is prone to low dissolved oxygen or harmful algal blooms, or if the proposed site or system is otherwise inconsistent with FMP objectives or other applicable law.

*Comment 44:* The final rule should establish grounds for revoking, suspending, or modifying permits and explain when NMFS will take remedial actions.

*Response:* Section 622.101(d)(8) of this final rule specifies that a permit may be revoked, suspended, or modified in accordance with the procedures governing enforcement-related permit sanctions and denials found at subpart D of 15 CFR part 904. Section 904.301(a) specifies the bases for permit sanction or denials, including the commission of any violation prohibited by any statute administered by NOAA, including violation of any regulation promulgated or permit condition or restriction prescribed thereunder, by the permit holder or with the use of a permitted vessel. Thus, reasons for revoking permits include,

but are not limited to, failure to comply with the monitoring, recordkeeping or reporting requirements of NMFS and other Federal agencies, failure to maintain valid ACOE Section 10 and EPA NPDES permits and failure to abide by permit terms and conditions.

Section 622.108 addresses remedial actions by NMFS and provides that in addition to permit sanction and denials, NMFS may order movement restrictions or the removal of all cultured animals if pathogens are identified or it is determined the genetically engineered or transgenic animals were used.

*Comment 45:* The 180-day time period for review of a Gulf aquaculture permit is excessive and should be changed to 90 days, after which time the permit should be issued if NMFS has not made a decision.

*Response:* NMFS disagrees that a 180-day time period for permit review is excessive and that a 90-day permit review timeframe would be adequate. The Council determined, and NMFS agrees, that 180 days is a reasonable amount of time to review and process individual permit applications, conduct public comment periods, and complete necessary consultations without unduly delaying or prolonging the approval process.

*Comment 46:* Several commenters stated that 10-year permit

terms and 5-year renewals are not long enough to attract significant commercial investment and that permits should be issued for longer periods of time. In contrast, several other commenters stated that permit terms should be issued for shorter periods of time to ensure permits are thoroughly reviewed on a more frequent basis.

*Response:* The Council determined, and NMFS agrees, the initial permit term of 10 years with 5-year renewals strikes the best balance between providing adequate time to establish operations and funding, while not granting excessively long permit durations which would make it difficult for NMFS to review and address any unexpected problems related to user conflicts or other issues. However, in response to industry concerns, NMFS has also determined that it is appropriate to make an administrative change to the permitting process to allow permit holders to request additional time to secure financing and prepare for production without changing the 10-year effective period of the initial issuance. Therefore, NMFS is modifying the requirements in § 622.101(d)(3)(iii) to allow the applicant to defer initial issuance of a Gulf aquaculture permit for up to 2 years from the date the RA notifies the applicant of the decision to grant the permit. The Council may choose to

change the permit duration terms in the future after more information is known about the impacts and feasibility of aquaculture operations in the Gulf EEZ. Additionally, as discussed above, in the event of a significant unexpected problem requiring urgent action to protect public health, interest, or safety, NMFS may consider withdrawing, suspending, revoking, or annulling a permit pursuant to the Administrative Procedure Act, 5 U.S.C. 558(c).

*Comment 47:* The \$10,000 permit application fee is prohibitive and unnecessary given the nascent status of the offshore aquaculture industry.

*Response:* NMFS disagrees. The fee schedule for permit applications is based on criteria set forth in the NOAA Finance Handbook and reflects the administrative costs associated with review of Gulf aquaculture permit applications and permit issuance. These costs include meeting with potential applicants to provide guidance and identifying critical issues before applications are finalized, reviewing application packages (e.g., site surveys, systems, business information) to determine the impacts of proposed operations on NOAA trust resources and associated requirements consulting with the Council and the public on proposed operations, and legal and technical support

informing determinations regarding permit issuance. Details on the NOAA Finance Handbook can be found at:

<http://www.corporateservices.noaa.gov/finance/Finance%20Handbook.html>.

*Comment 48:* NMFS should explain the contingencies for transferring a Gulf aquaculture permit.

*Response:* Permit transfer provisions are outlined in § 622.101(d)(5) of this final rule. Gulf aquaculture permits are transferable as long as the geographic location of the aquaculture facility site remains unchanged and all applicable permit requirements were completed and updated at the time of transfer. The transferee must also be a U.S. citizen or permanent resident alien in order to be eligible for a permit.

*Comment 49:* The proposed rule estimates the average time to prepare a Gulf aquaculture permit application and supporting documents to be 33 hours. This is an underestimation. The final rule should also correct the assumption that the baseline environmental survey will require 24 hours to complete as this will likely take several weeks or more.

*Response:* NMFS agrees and has recalculated the estimated time it will take to prepare a permit application and supporting documents (assurance bond, contract with a certified aquatic

animal health expert, emergency disaster plan) to be approximately 51 hours. This estimate does not include the time necessary to complete a baseline environmental survey, which could take up to 320 hours based on the calculation of work necessary to conduct the survey on a site that would produce approximately 12.8 million lb (5.8 million kg) annually. NMFS notes that the actual time to complete an application and baseline environmental survey may vary as it will depend on the complexity of the operation, as well as the location and size of the proposed site.

#### *Siting Criteria and Requirements*

*Comment 50:* NMFS should consider information on ocean depth, ocean speeds, substrate types, hypoxia, and fish habitats prior to approving a permit.

*Response:* NMFS agrees. As specified in § 622.103(a)(4) and as discussed in Section 4.6 of the FMP, the RA will evaluate proposed sites on a case-by-case basis. Siting criteria for offshore aquaculture systems include but are not limited to: the depth of the site, current speeds and benthic sediments, the frequency of harmful algal blooms or hypoxia at the proposed site, marine mammal migratory pathways, and the location of the proposed site relative to important habitats. NMFS will consider

this information as well as information from the baseline environmental survey requirement when determining whether to approve or deny a permit.

The RA may deny use of a proposed aquaculture site based on a determination the proposed site: would pose significant risks to EFH, or to endangered or threatened species; would result in user conflicts with commercial or recreational fishermen or with other marine resource users; would pose risk to the cultured species due to low dissolved oxygen or harmful algal blooms; is not of sufficient depth for the approved aquaculture system; is characterized by substrate and currents that would inhibit the dispersal of wastes and effluents; or is otherwise inconsistent with FMP objectives and applicable Federal laws.

*Comment 51:* The 1.6 nm (3 km) minimum distance between aquaculture operations is too conservative and should be based on scientific criteria and designated on a case-by-case basis according to the specifics of each facility.

*Response:* The Council determined, and NMFS agrees, that, as a general rule, 1.6 nm (3 km) provides a sufficient buffer between Gulf aquaculture facilities. As discussed in the proposed rule, as well as in section 4.6 of the FMP, this siting requirement was established to minimize transmission of

pathogens between facilities. British Columbia and Chile require salmon farms to be sited at least 1.6 nm (3km) apart, while Scotland requires salmon farms to be sited at least 4.3 nm (8km) apart. By comparison, Nova Scotia, Newfoundland, Maine, and New Brunswick require salmon farms to be separated by a distance of 0.5 nm (1 km) or less. Thus, although there is no widely accepted standard for how far apart facilities should be sited, the farther apart facilities are sited, the lower the likelihood that water from one facility will contaminate water at another facility. The Council determined and NMFS agrees that the minimum distance of 1.6 nm (3 km) strikes an appropriate balance. However, this final rule also states that each proposed site will be evaluated on a case-by-case basis and allows the RA to deny the use of a proposed site based on the criteria in § 622.103(a)(4) even if it meets or exceeds the minimum distance requirement of 1.6 nm (3 km).

*Comment 52:* NMFS should prohibit siting of aquaculture facilities in sensitive habitats. Offshore aquaculture facilities will compete for space with other uses of the ocean, such as protected areas (e.g., marine reserves).

*Response:* NMFS agrees that offshore aquaculture facilities should not be sited in sensitive habits. The requirement to

monitor and report baseline environmental survey data will allow NMFS to determine if sensitive habitat exists at the site and could be impacted by aquaculture operation.

To ensure facilities do not compete with marine reserves and other protected areas, § 622.103(a)(1) of the final rule specifies that offshore aquaculture operations would be prohibited in Gulf EEZ marine protected areas and marine reserves, HAPCs, Special Management Zones, and permitted artificial reef areas and coral reef areas. Additionally, permits other than those for aquaculture may also be required in certain protected areas, such as within National Marine Sanctuaries, for example. NMFS may also deny a proposed site if it is found to pose significant risks to EFH or is otherwise inconsistent with FMP objectives and applicable Federal law.

*Comment 53:* The proposed rule states that a proposed aquaculture site could be denied if it would result in user conflicts with recreational or commercial fishing or other marine users (e.g., oil and gas infrastructure) and this could displace aquaculture operations to less desirable areas.

*Response:* NMFS recognizes that user conflicts may result in the denial of certain sites, however, this is not expected to result in displacement of aquaculture operations to areas

considered to be less desirable. NMFS will work with other Federal agencies and the public to balance the various uses of the Gulf EEZ and develop processes to identify potential siting conflicts early in the permitting process.

#### *Harvest and Landing Requirements*

*Comment 54:* The requirement to land cultured fish between 6 a.m. to 6 p.m. local time is unreasonable. Restricting landing times to daylight hours may increase production losses due to predators or environmental factors. The ability to land at night should be allowed.

*Response:* NMFS agrees that restricting the time a vessel can arrive at a dock (*i.e.*, "land") with cultured fish is overly restrictive. The regulations at 50 CFR 600.10 define "land" as begin offloading fish, to offload fish, or to arrive in port or at a dock, berth, beach, seawall, or ramp. The FMP, and the codified text in the proposed rule, stated that species cultured at an aquaculture facility must be "landed ashore" between 6 a.m. and 6 p.m., local time. However, the preamble to the proposed rule stated that permittees participating in the aquaculture program would be allowed to "offload" cultured animals at aquaculture dealers only between 6 a.m. and 6 p.m., local time. NMFS has determined that using the more precise term

"offload" in this context is consistent with the objective of the requirement, which is to aid enforcement, while also allowing vessels the flexibility to arrive at the dock at any time. By restricting offloading times, law enforcement will be able to ensure that vessels are landing only cultured species (e.g., secure tissue samples to be tested against broodstock DNA). For the purposes of this requirement, NMFS is defining the terms "offload" in § 622.106(a)(14) to mean "to remove cultured animals from a vessel."

*Comment 55:* The requirement that cultured fish be landed whole (with heads and fins intact) is inappropriate and should be removed.

*Response:* NMFS disagrees the requirement that cultured fish be landed whole is inappropriate. Landing cultured fish with heads and fins intact will assist enforcement agents in properly identifying cultured species, promoting effective implementation and oversight of program rules and regulations.

*Comment 56:* The requirement for permittees to notify NMFS at least 72 hours prior to harvesting fish from offshore aquaculture systems is problematic as harvest timeframes can change due to weather and other factors.

*Response:* The Council determined, and NMFS agrees, the 72-

hour notification window is necessary to allow law enforcement and NMFS staff the opportunity to be present at a facility when harvesting occurs to verify that permittees remain within their production cap and that only cultured species are harvested. If the anticipated harvest times are delayed or change due to inclement weather or other circumstances, then permittees can update NMFS by phone or web-based form.

*Comment 57:* The proposed rule states that permittees must notify NMFS within 72 hours of landing to ensure that only cultured animals are landed. Another way to verify that only cultured animals are landed is by conducting tissue analysis (e.g., fatty acid composition) on landed fish.

*Response:* NMFS is aware of studies which have demonstrated that commercial feed diets fed to cultured animals can help to distinguish these fish from their wild counterparts. However, the 72-hour notification requirement is different as it allows law enforcement the opportunity to intercept fish at the time of landing. NMFS will employ genetic verification techniques, when necessary, to verify that only cultured fish are landed.

#### *Allowable Aquaculture Species and Systems*

*Comment 58:* The final rule should explicitly state that only federally managed species are allowed to be cultured in the

Gulf EEZ and explain the mechanism for managed species in the Gulf EEZ.

*Response:* Section 622.105(b) of the final rule states that the only species that may be cultured in the Gulf EEZ under the FMP are species of coastal migratory pelagic fish, Gulf reef fish, red drum, and spiny lobster that are managed by the Council. As explained in the preamble, anyone wishing to culture species in the Gulf EEZ that are not managed by the Council would have to apply for an EFP. Information on applying for an EFP can be found at 50 CFR 600.745.

*Comment 59:* The states should play a role in determining the type and amount of species allowed for culture.

*Response:* NMFS agrees. During the development of the FMP, Council representatives from all five Gulf states were involved in decisions related to the type and amount of species that could be cultured under a Gulf aquaculture permit. The Council has continuing authority over aquaculture operations in the EEZ and may modify the types and amounts of species authorized to be cultured at any time, consistent with the requirements of the Magnuson-Stevens Act. In addition, the RA will consult with the Council during the public comment period on specific permit applications as required in § 622.101(d)(2) of this final rule.

*Comment 60:* NMFS should require the use of advanced aquaculture systems that avoid and minimize environmental harm.

*Response:* The Council determined, and NMFS agrees, that requiring use of specific aquaculture systems is not ideal as there is a wide array of offshore aquaculture systems that are used. Allowing flexibility regarding aquaculture systems is necessary to ensure systems have sufficient structural integrity and allow for innovation as aquaculture system technology develops.

To minimize or avoid the risk of environmental harm from aquaculture systems, the RA will review the structural integrity and other aspects of each proposed system on a case-by-case basis. The RA may deny use of a proposed system, or specify conditions for using a proposed system, if it is determined to pose a significant risk to EFH, endangered or threatened marine species, marine mammals, wild fish or invertebrates, public health, and safety. This case-specific approach will help improve the potential economic viability and returns of aquaculture operations by ensuring each operation the opportunity to use the system that best meets its production goals without compromising environmental standards and objectives.

*Comment 61:* The requirement that aquaculture systems be fitted with a locating device should be removed.

*Response:* NMFS disagrees. Locating devices will allow operators to locate, and potentially retrieve, aquaculture structures in the event that they break free or are transported away from the permitted site. The Council determined, and NMFS agrees, this requirement is necessary to help prevent long-term damage to habitat and increase navigational safety.

*Reportable Pathogens and Animal Health*

*Comment 62:* Permittees should report pathogen episodes directly to APHIS so that APHIS can confirm the presence of reportable pathogens and take the appropriate steps to implement control or eradication measures.

*Response:* NMFS disagrees that it is necessary for permittees to report pathogen episodes directly to APHIS rather than NMFS. Section 622.102(a)(1)(i)(C) of this final rule requires permittees to report all findings or suspected findings of any OIE or NAAHP reportable pathogen episodes to NMFS within 24 hours of diagnosis. Upon confirmation by an APHIS-approved reference laboratory that a reportable pathogen exists and the determination that the pathogen poses a significant risk to the health of wild or farmed aquatic organisms, NMFS, in cooperation

with APHIS, will take appropriate actions, which may include the removal of all cultured animals from the offshore aquaculture systems. The Council determined, and NMFS agrees, this process provides the necessary safeguards to adequately address any pathogen episodes.

*Comment 63:* NOAA should defer primary regulatory responsibility and oversight of all animal health and pathogen related issues to APHIS and address these issues in an interagency MOU.

*Response:* NMFS disagrees that primary regulatory responsibility for cultured animals should be deferred to APHIS. NMFS will work in cooperation with APHIS and aquaculture facility staff to sample cultured animals for testing, conduct testing at APHIS-approved laboratories, and take any actions needed to address pathogen episodes. In regard to issuing health certificates and assisting growers with their animal health plans for cultured animals, NMFS has determined that these activities may be carried out by an aquatic animal health expert as defined in § 622.2 of this rule. Oversight of broader animal health and pathogen issues for wild fish is outside of the scope of this rule and is not addressed further.

A current MOU already exists between NMFS, APHIS and the United States Fish and Wildlife Service (USFWS) which outlines the legal authorities and mandates and roles and responsibilities of the three agencies with respect to animal health.

*Comment 64:* NMFS should define an "aquatic animal health expert" as a licensed veterinarian. NMFS should also require that only accredited veterinarians be allowed to issue health certificates and these veterinarians should be required to have fish health experience.

*Response:* NMFS disagrees. Many state and Federal agencies recognize that experts other than veterinarians are qualified to carry out inspections, test for pathogens, issue health certificates, and assist growers in their respective overall animal health plans. The broader definition of "aquatic animal health expert" in § 622.2 of this final rule will provide the fishery greater flexibility by enabling persons certified by the American Fisheries Society, Fish Health Section, as a "Fish Pathologist" or "Fish Health Inspector", to perform those general animal health functions. There is no requirement under the Veterinary Accreditation regulations for veterinarians to have specific experience for the animal they are working with

(e.g., fish).

*Comment 65:* The final rule should include details regarding health screening of cultured animals and specify which criteria will be used to certify that cultured animals are free of OIE-reportable pathogens prior to stocking.

*Response:* NMFS disagrees that the final rule needs to provide additional details regarding diagnostic testing (*i.e.*, health screening) as these methods will vary for each cultured species and may change over time. In regard to diagnostic techniques used to detect OIE-reportable diseases, methods relevant to the OIE-listed diseases can be found in the Manual of Diagnostic Tests for Aquatic Animals at:

<http://www.oie.int/international-standard-setting/aquatic-manual/>.

NMFS and APHIS staff will work closely with the permittee and designated aquatic animal health expert for each facility to ensure that appropriate diagnostic testing is conducted prior to each stocking event. NMFS believes this process provides sufficient safeguards against the potential spread of pathogens and disease from cultured to wild fish at an aquaculture facility.

*Comment 66:* When reporting an OIE or NAAHP pathogen,

notification should be made within 48 hours of the discovery of a mortality rate of 5 percent or more that occurs within a 7-day period. NMFS should also require that epidemiological samples be submitted to a certified aquatic animal health expert for diagnosis.

*Response:* The Council determined, and NMFS agrees, the current requirement to report all reportable pathogens within 24 hours of diagnosis, regardless of the mortality rate of the cultured animals affected, is necessary to ensure wild stocks and other marine resources are appropriately safeguarded. The less conservative threshold and reporting timeframe suggested could result in a longer period of time before the reportable pathogen issue is addressed. The current requirement will allow NMFS and other agencies to more quickly and efficiently respond to reportable pathogen events.

NMFS will work in cooperation with APHIS and the aquaculture facility staff to collect samples for testing, conduct testing at APHIS-approved laboratories, and take any actions needed to address pathogen episodes.

#### *Aquaculture Feeds, Antibiotics, and Other Chemicals*

*Comment 67:* NMFS should cap the amount of fish meal and fish oil used by aquaculture operations and require the use of

alternative feeds which do not contain these ingredients.

*Response:* NMFS disagrees that it is necessary to specify which feeds can and cannot be used in aquaculture. The percentage of fish meal and fish oil used in aquaculture feeds has decreased in recent years and continues to decrease, in part because many feeds which are free of or low in fish meal and oil are now commercially available. The world supply of fish meal and fish oil from pelagic fisheries has remained relatively constant over the past 20 years at around 6 million metric tons, even as aquaculture operations continue to expand. Alternate ingredients being used in aquaculture feeds include soybeans, barley, rice, peas, canola, lupine, wheat gluten, corn gluten, algae, as well as seafood and farm animal processing co-products.

*Comment 68:* Farmed fish often receive large doses of antibiotics and other chemicals to protect them from diseases and parasites. These chemicals can have a negative impact on the marine environment as well as human health. The use of aquaculture feeds made from wild-caught fish could also have human health consequences.

*Response:* NMFS disagrees that farmed fish generally receive large doses of antibiotics or other chemicals, and has

determined that the requirements in this final rule and the regulations promulgated by other Federal agencies will minimize the risk of negative impacts on the marine environment and human health. The use of antibiotics and other therapeutic chemicals in marine aquaculture has drastically decreased over the past several decades. In fact, the use of vaccines to prevent bacterial diseases has in the past 20 years reduced the use of antibiotics in marine farming by 95 percent. Effective vaccines have significantly reduced the use of antibiotics in certain sectors of the U.S. aquaculture industry (e.g., salmon farming). In addition to vaccines, good nutrition and improved husbandry have continued to play an important role in protecting cultured fish from disease and have thus significantly reduced the use of all types of therapeutants (i.e., a healing or curative agent or medicine) in aquaculture. Additionally, the use of drugs, pesticides, and biologics by NMFS permittees must comply with all applicable FDA, EPA, and United States Department of Agriculture (USDA) regulations, which are meant to minimize or avoid negative impacts on the marine environment and human health.

In regard to the impact of aquaculture feeds on human health, FDA regulates fish feeds and ingredients under the

Federal Food, Drug, and Cosmetic Act and requires animal feed to be safe and to be truthfully labeled. To be approved by FDA for use in animal feeds, additives must be demonstrated to be useful and to be safe to both the target animal (fish) and human consumers.

*Comment 69:* The proposed rule and the FMP allow the use of potentially harmful drugs and chemicals, including extra-label drugs, which can negatively impact the marine environment.

*Response:* NMFS disagrees. This final rule and the FMP require the use of drugs, pesticides and biologics to comply with FDA, EPA, and USDA regulations, which are designed to prevent or minimize negative environmental impacts. The list of drugs FDA has approved for aquaculture can be found at: <http://www.fda.gov/animalveterinary/developmentapprovalprocess/aquaculture/ucm132954.htm>. The extra-label use of drugs for aquaculture purposes is strictly regulated by FDA and must be on the order of a licensed veterinarian.

*Comment 70:* The public should have access to records on the type and quantity of drugs and other chemicals used in offshore aquaculture as well as ongoing monitoring data for water quality and benthic sampling. In addition, states should play a role in determining monitoring protocols for aquaculture facilities.

*Response:* NMFS does not regulate drugs or chemicals used in offshore aquaculture operations. The use of drugs, pesticides, and biologics are under the authority of FDA, EPA, and USDA, respectively. The EPA sets water quality monitoring protocols for offshore aquaculture operations and collects monitoring data. Dissemination of information collected by other Federal agencies would be subject to data disclosure provisions that are applicable to those agencies.

NMFS may coordinate the development of monitoring protocols with other Federal agencies or defer to other agencies if those agencies have primary authority. In developing such protocols, NMFS may decide to solicit input from the states and the public.

*Comment 71:* Aquaculture will pollute the environment.

*Response:* NMFS disagrees that aquaculture, if properly regulated, will pollute the environment. The FMP and this final rule establish numerous environmental safeguards, including siting restrictions, monitoring and reporting requirements, and requirements to abide by regulations of other Federal agencies (e.g., use of drugs, pesticides, and biologics must comply with all applicable FDA, EPA, and USDA regulations), which are designed to minimize any potential adverse environmental effects of aquaculture operations. NMFS will review proposed sites and

systems, and may deny those that are found to pose significant risks to marine resources or otherwise inconsistent with all applicable law. NMFS will work with permittees to resolve any unanticipated environmental problems or impacts that are identified after an operation is permitted. Permits are also subject to revocation when appropriate.

*Assurance Bond*

*Comment 72:* The assurance bond should cover costs associated with finding, securing, and removing systems and impacts to natural resources caused by equipment or by escaped organisms. The final rule should also specify how much the assurance bond requirement will cost Gulf aquaculture permit holders. Additionally, the rule should indicate how states will be compensated for any impacts from aquaculture operation on state resources.

*Response:* The assurance bond required by the FMP and this final rule will be used to remove aquaculture structures or cultured animals if permittees fail to do so when ordered to by NMFS. The assurance bond cannot be used to compensate for natural resource impacts caused by equipment or by escaped cultured animals. The Council determined, and NMFS agrees, that it is difficult to identify and define the added cost that would

be required to compensate for such impacts, and that it is unnecessary to do so because the FMP and this final rule include numerous environmental safeguards (e.g., prohibitions on genetically engineered and transgenic animals) to prevent or minimize such damage. Additionally, the FMP and rule specify that NMFS will review the structural integrity of proposed aquaculture systems and may deny use of a proposed system or specify conditions for its use if it is determined to pose a significant risk to EFH, endangered or threatened marine species, marine mammals, wild fish or invertebrate stocks, public health, or safety.

The cost of the assurance bond will vary depending on the size and scale of the aquaculture facility and must be enough to cover the costs of removal of all components of the facility and cultured animals. NMFS will publish guidance on how to comply with the assurance bond requirement on its Web site when the rule becomes effective.

The FMP and rule do not contain a compensatory mechanism for impacts to state marine resources resulting from aquaculture operations. However, the FMP and rule do contain several regulatory requirements which aim to prevent and manage adverse impacts to marine resources from aquaculture operations. These

include disease testing prior to stocking juveniles into offshore aquaculture systems, reporting incidences of OIE and NAAHP reportable pathogens within 24 hours, requiring that only local, native broodstock be used to produce juveniles for stocking in offshore systems, prohibiting the use of genetically engineered and transgenic animals for culture purposes, and reviewing potential sites for habitat concerns prior to permitting aquaculture operations.

In addition, § 622.102 in this final rule lists various recordkeeping and reporting requirements that will allow NMFS to work with a permittee to resolve potential problems and environmental impacts. Permits are also subject to revocation when appropriate.

#### *Aquaculture Facility Inspections*

*Comment 73:* The inspection requirement and requirements to report the average price and weight of fish produced should be removed as it will result in the loss of intellectual proprietary information.

*Response:* NMFS disagrees. The information NMFS employees and authorized officers access during the inspection process is needed to ensure aquaculture facilities operate in compliance with the applicable regulations relating to aquaculture in the

Gulf EEZ. All private or intellectual property information which is required to be submitted in compliance with the requirements of this final rule is protected by the confidentiality of information provisions in section 402(b) of the Magnuson-Stevens Act and 50 CFR part 600, subpart E (§§ 600.405 through 600.425).

*Broodstock and Cultured Animals*

*Comment 74:* The final rule should define "population" and "subpopulation" for purposes of broodstock collection.

*Response:* NMFS disagrees that it is necessary to define "population" and "subpopulation" in the final rule. The precise meaning of these terms may vary depending on the species or stock at issue and will be based on the best scientific information available. NMFS will provide guidance on the meaning of the terms "population" and "subpopulation" as it relates to broodstock collection in a separate document which outlines specific broodstock sourcing requirements. This document will be made available on the Web site when the rule becomes effective.

*Comment 75:* Broodstock should be collected from the same population or sub-population unless it can be shown that genetic homogeneity exists for that species in the Gulf.

*Response:* NMFS agrees. The FMP and this final rule require that all broodstock, or progeny of such broodstock, must be

originally collected from the same population or subpopulation where the aquaculture facility is located. This requirement ensures that the genetic make-up of cultured animals originates from the same stock where the facility will operate. Species that are found to be genetically homogeneous would, for all intents and purposes, be considered to be the same population.

*Comment 76:* The final rule should specify requirements regarding the frequency of broodstock collection and hatchery breeding practices.

*Response:* NMFS disagrees there is a need to regulate the frequency of broodstock collection. The appropriate collection frequency will vary depending on the size and scale of individual operations and the species being cultured.

The FMP and this final rule allow NMFS to monitor the frequency of broodstock collection and minimize any potential adverse impacts of broodstock collection by requiring permittees to obtain the RA's approval prior to each collection event. Collection requests must include information on the number, size, and species to be harvested, the methods, gear, and vessels to be used for capturing, holding, and transporting broodstock, the date and specific location of the intended harvest, and the location where the broodstock will be

delivered. The RA may deny a request to harvest broodstock if allowable methods or gear are not proposed for use, the number of broodstock is larger than necessary for spawning and rearing activities, or if the proposed activity is inconsistent with FMP objectives or Federal laws.

Additionally, if a broodstock harvest request is approved, the permittee will be required to submit a report to the RA within 15 days of the date of harvest summarizing the number, size, and species to be harvested, and identifying the location where the broodstock were captured. If this information suggests that more specific requirements pertaining to frequency of broodstock collection are necessary, the Council may consider modifying the FMP to include such requirements.

NMFS also disagrees that hatchery breeding practices should be regulated by this rulemaking. NMFS has determined it is more appropriate to develop guidance on hatchery breeding protocols separately as this will allow for the guidance to be adapted in a more timely manner as information evolves. This guidance will be available on the Web site when the rule becomes effective.

*Comment 77:* The final rule should allow cultured juveniles to be sourced from hatcheries in foreign countries.

*Response:* NMFS disagrees. As stated in the preamble to this

final rule and discussed in the FMP, allowing organisms to be obtained from non-U.S. hatcheries for grow-out would make it difficult to enforce regulatory requirements that are intended to prevent or minimize the environmental impacts of potential escapements (e.g., animals cannot be genetically engineered or transgenic, must be sourced from the same population or subpopulation that occurs where the facility is located, must be certified as pathogen-free prior to stocking in offshore systems, etc.). Therefore, no changes have been made to this requirement.

*Comment 78:* The proposed rule states that permittees would be required to submit a request to NMFS to harvest broodstock from the Gulf, including state waters. The final rule should specify that this requirement is for federally managed species only as states may have requirements specific to state-managed species.

*Response:* NMFS agrees. Submission of requests to collect broodstock is a requirement of the Gulf aquaculture permit, which allows the culture of only those federally managed species specified in § 622.105(b) of this rule. Nothing in this rule imposes requirements on the collection of broodstock of those species that are exclusively managed by the states. However, if

broodstock for allowable aquaculture species are harvested from state waters, § 622.106(a)(16)(iv) of this rule requires that harvest also comply with all applicable state laws.

*Comment 79:* NMFS should monitor broodstock collection and establish requirements to reduce or eliminate bycatch.

*Response:* Permittees must submit a request to NMFS to collect broodstock which will allow NMFS to monitor broodstock collection. In this request, permittees will specify the number and size of broodstock proposed for capture and the gear used for capture and these requests will need to be authorized by NMFS. Although bycatch may occur during the capture of broodstock, the amount of bycatch is expected to be small and negligible relative to overall bycatch occurring in each fishery. NMFS may also deny a proposal to harvest broodstock if it was determined that broodstock collection activities would be inconsistent with FMP objectives related to bycatch.

#### *Recordkeeping and Reporting Requirements*

*Comment 80:* Permittees should be required to monitor and report abundance and prevalence of ectoparasites on cultured and nearby wild fish.

*Response:* NMFS disagrees. Ectoparasites are common in marine ecosystems and are generally not considered a significant

enough threat to fish and human health to require additional monitoring and reporting. If new information indicates that ectoparasites are a greater threat to fish and human health than previously determined, the Council may require reporting of ectoparasites in the future.

*Comment 81:* Permittees should be required to record and report stocking and harvest information.

*Response:* NMFS agrees. Section 622.102(a)(1)(i)(A) and (D), require permittees to report stocking and harvest information, respectively, to NMFS at least 72 hours prior to these activities.

*Comment 82:* The requirement to comply with all monitoring and reporting requirements of other Federal agencies' permits should be removed.

*Response:* NMFS disagrees. Such requirements are necessary to maintain other Federal permits which, in addition to NMFS' permit, are necessary in order to operate offshore aquaculture facilities. Should permittees be unable to secure the appropriate permits or comply with applicable requirements, they would be unable to operate and thus their Gulf aquaculture permit could be revoked or suspended.

*Comment 83:* The requirement to report landing transactions

of cultured animals to NMFS is duplicative to state commercial trip ticket programs.

*Response:* NMFS disagrees. Currently, state trip ticket programs only cover wild caught fish, and not cultured animals, therefore this information is not captured at the state level. Landings and transactions of cultured species harvested from the Gulf EEZ will be tracked using an electronic reporting system developed by NMFS. This system will allow NMFS to cross-check landings reported by permit holders with dealer transactions after cultured animals are sold.

*Comment 84:* The final rule should require monitoring and reporting of environmental impacts such as the discharge of feed and waste as well as the use of antibiotics or therapeutants. The final rule should also set limits for water quality impacts.

*Response:* NMFS disagrees. The use of feed, antibiotics and therapeutants is regulated by the EPA under the Clean Water Act and is not under the purview of NMFS. The EPA will establish limits for water quality impacts as part of their NPDES permitting process for individual aquaculture operations.

#### *Socio-Economic Impacts*

*Comment 85:* The FMP and rule should assess the impacts of offshore aquaculture on Gulf local economies.

*Response:* NMFS agrees. Section 7.5 of the FMP and the Final Regulatory Flexibility Act (FRFA) contained in this final rule assess the economic impacts of the FMP, as required by the Magnuson-Stevens Act, NEPA, Executive Order 12866, the RFA, and other applicable laws.

*Comment 86:* Aquaculture operations create few jobs and negatively impact communities that depend on domestic wild fisheries (e.g., decreased market prices for wild species).

*Response:* It is unknown at this time to what extent Gulf offshore aquaculture operations will directly compete with domestic wild fisheries regionally and nationally in the long term. Should offshore aquaculture directly compete with Gulf and other domestic wild fisheries in the long term, there could be significant adverse economic impacts on fishing communities (e.g., loss of jobs, and loss of revenue due to decreased prices, value of individual fishing quota (IFQ) shares. However, the likelihood of such adverse impacts occurring would depend on the price, quality, and many other factors influencing market demand of both farmed and wild-caught species.

Nonetheless, foreign imports represent a significant amount of the current U.S. seafood, therefore, NMFS does not expect that domestically cultured species will have a significant

economic impact on traditional fishing businesses or communities over the short term. Conversely, aquaculture operations could provide additional means of employment, thereby, benefitting local communities. Further discussion of the potential economic and social impacts of aquaculture can be found in Section 6.1.6 of the FMP.

*Comment 87:* The Fishery Impact Statement (FIS) in the FMP is inadequate regarding the potential impacts of offshore aquaculture on fishing communities.

*Response:* NMFS disagrees. The FIS in Section 9.0 of the FMP summarizes detailed discussion and analysis in Section 6.0 of the FMP of the expected impacts of all the FMP's permitting and operational requirements and restrictions on fishing communities. The FIS concludes permitting requirements and restrictions may adversely impact those who are denied access to approved aquaculture sites for traditional fishing and/or other purposes and create other adverse socioeconomic consequences. Also, the FIS concludes that required restricted access zones may reduce the area available for fishing and vessel transit.

The potential economic and social impacts of the FMP on domestic fisheries are further detailed in Section 6.1.6 of the FMP. The FMP could adversely impact fishing communities by

reducing prices for domestic wild caught product, and could benefit fishing communities by creating new jobs in local communities related to aquaculture operations.

*EFH and Protected Resources*

*Comment 88:* The FMP and proposed rule fail to minimize the adverse effect of offshore aquaculture on EFH.

*Response:* NMFS disagrees. NMFS completed an EFH consultation on the FMP on April 30, 2009, and concluded that the actions in the FMP would not adversely affect EFH because of environmental safeguards such as siting criteria (Sections 4.6 and 6.7 of the FMP) and aquaculture system requirements (Sections 4.5 and 6.6 of the FMP) which are intended to avoid and minimize adverse impacts of offshore aquaculture operations on EFH and other sensitive marine habitats. For example, offshore aquaculture would be prohibited from occurring in numerous areas identified as EFH such as HAPCs, marine reserves, marine protected areas and coral areas, and other critical habitats would be considered during a case-by-case review of the proposed site. The requirement to have locating devices on offshore systems will also reduce long-term damage to EFH and marine resources that could result from derelict gear. Additionally, NMFS will review each individual Gulf aquaculture

permit application to determine potential impacts on EFH and consult on individual activities with adverse impacts as required by the Magnuson-Stevens Act. As explained in the preamble of this final rule, and in Action 6 of the FMP, NMFS may deny an application for a Gulf aquaculture permit if it is determined that the use of a site or system, or the aquaculture operation as a whole, poses significant risks to EFH. Such a determination shall be based on consultations with NMFS offices and programs and siting and other information submitted by the permit applicant, including the required baseline environmental survey.

*Comment 89:* NMFS failed to complete EFH and ESA consultations on the FMP.

*Response:* NMFS disagrees. NMFS completed the EFH consultation processes on April 30, 2009, and determined that the actions in the FMP would not adversely affect EFH. NMFS reviewed that determination on April 30, 2013, following preparation of the draft SFPEIS and came to the same conclusion.

NMFS completed an ESA consultation on the FMP on May 5, 2009, and determined that the action was not likely to adversely affect any listed species under NMFS' purview. After reviewing new information relating to the Deepwater Horizon MC252 oil

spill that occurred in April 2010, NMFS' Sustainable Fisheries Division determined, in a memo dated April 18, 2013, that reinitiation of the consultation is not required. However, in June 2015, NMFS reinitiated ESA consultation to evaluate the effects of the FMP on three newly listed coral species, newly designated loggerhead sea turtle critical habitat, and proposed green sea turtle distinct population segments. That consultation, completed on June 24, 2015, similarly determined that the fishing activities conducted under the FMP are not likely to adversely affect these species or critical habitat.

*Comment 90:* Aquaculture systems should be properly sited to avoid blocking migratory pathways or altering habitat of ESA-listed species.

*Response:* As explained in the response to Comment 89, in the completed ESA consultations, NMFS concluded that the fishing activities conducted under the FMP will not adversely affect listed species or their critical habitat. However, when evaluating a proposed site, NMFS will evaluate and consider, among other things, the proximity of the site to marine mammal migratory pathways and important habitats and will evaluate each proposed aquaculture system and its operations for potential risks endangered and threatened marine species and can deny a

system or specify conditions for using a system if it is determined to pose significant risk to these species.

*Comment 91:* Aquaculture facilities may threaten marine animals, including ESA-listed species, by posing an entanglement risk or resulting in harassment or death. The final rule should address whether there are penalties for failure to remedy or redress entanglement or interaction issues. It should also mention if independent (*i.e.*, third party) monitoring or auditing is required for entanglements or interactions, how often inspections for entanglements or interactions should occur and who will conduct these inspections.

*Response:* NMFS disagrees that these facilities pose an entanglement risk or are likely to result in harassment or death of marine animals. As explained in the response to Comment 89, in the completed ESA consultations, NMFS concluded that the fishing activities conducted under the FMP will not adversely affect listed species. With respect to entanglement risks, the consultations explained that entanglement can be greatly reduced through the use of rigid, durable materials and by keeping lines taut, and that in practice, most offshore marine aquaculture facilities are constructed under these specifications. The consultations also noted that the FMP requires applicants to

provide documentation sufficient to evaluate a system's ability to withstand physical stresses and that there is anecdotal evidence that supports the conclusion that interactions are rare. Consultation will be reinitiated if new information reveals entanglement or other effects of the action not previously considered or the identified action is modified in a manner that may cause effects to listed species in a manner or to an extent not previously considered.

Safeguards to minimize risks to ESA-listed species and other wildlife are specified in §§ 622.103(a)(4) and 622.105(a). For example, NMFS will evaluate each proposed site, and each proposed system and its operations, based on a number of factors including potential risks to endangered or threatened marine species, marine mammals, and wild fish or invertebrate stocks and can deny the use of a site or a system based on a determination of such significant risks or inconsistency with FMP objectives or other applicable law. The RA may also specify conditions for using an aquaculture system based on the determination of significant risk.

As specified in § 622.106(a)(9), permittees must regularly inspect approved aquaculture systems, including mooring and anchor lines, for entanglements or interactions with marine

mammals, protected species, and migratory birds. Inspections will be conducted by the permittees and the frequency of inspections will be specified as a condition of their Gulf aquaculture permit. No independent (*i.e.*, third party) monitoring or auditing is required for entanglement or interaction purposes.

Permittees are required to report to NMFS specific details of any entanglement or interaction, within 24 hours, with marine mammals, protected species or migratory birds, including any actions being taken to prevent future entanglements or interactions, as specified in § 622.102(a)(1)(i)(G). Violating this requirement could result in NMFS modifying, suspending, or revoking a permit in accordance with subpart D of 15 CFR part 904. If new information reveals entanglement or other effects of the action not previously considered or the identified action is modified in a manner that may cause effects to listed species in a manner or to an extent not previously considered, NMFS will reinitiate Section 7 consultation.

With respect to the potential harassment of marine mammals by fish farmers, NMFS notes that this would be a violation of the Marine Mammal Protection Act (MMPA). Permittees must comply with the MMPA and other applicable laws.

*Comment 92:* NMFS should have completed a Biological Assessment or Biological Opinion on the FMP.

*Response:* As explained in the response to Comment 89, NMFS completed ESA consultations that concluded that the fishing activities conducted under the FMP will not adversely affect listed species. These consultations included a Biological Assessment, which is defined at 50 CFR 402.02 as the information prepared by the Federal agency concerning listing and proposed species and designated and proposed critical habitat that may be present in the action area and the evaluation of potential effects of the action on such species and habitat.

A Biological Opinion is required only when a proposed action is likely to adversely affect a listed species or designated critical habitat. Because NMFS determined the FMP is not likely to adversely affect ESA-listed species or designated critical habitat, a Biological Opinion was not prepared.

*Comment 93:* The FMP and proposed rule do not assess whether the aquaculture facilities will "take" marine mammals or migratory birds.

*Response:* Section 6.1.4 of the FMP discusses physical interactions of aquaculture facilities with wildlife, including marine mammals and birds.

There is evidence to show that marine mammals can interact with aquaculture facilities. Marine mammals can become entangled in offshore aquaculture gear resulting in injury or death. Depredation (*i.e.*, taking cultured fish from pens or other aquaculture gear) may occur at aquaculture facilities, which can lead to an increased risk of entanglement and may further result in retaliation by aquaculture operators. Some marine mammal interactions have occurred at aquaculture facilities currently operating in other areas of the United States. Documented interactions include depredation from aquaculture pens by wild bottlenose dolphins, aquaculture workers illegally feeding wild bottlenose dolphins, and a depredating wild bottlenose dolphin that became entangled by a fisherman fishing at an aquaculture pen.

Aquaculture is considered a commercial fishery under the MMPA. As such, it will be designated on the MMPA's List of Fisheries (LOF) per section 118 of the MMPA. The Marine Mammal Authorization Program (MMAP) allows commercial fishing entities designated on the LOF to lawfully incidentally take marine mammals in a commercial fishery in certain cases: (1) a fishery classified as a Category I or II registers for and maintains a valid MMAP certificate from NMFS (50 CFR 229.4); (2) an observer

is accommodated upon request (50 CFR 229.7); and (3) any incidental marine mammal mortality or injury occurring in a Category I, II, or III fishery is reported within 48 hours of the occurrence (50 CFR 229.6). NMFS previously determined that aquaculture fishing activities would have no adverse impact on marine mammals and aquaculture was classified as a Category III fishery in the 2015 LOF (79 FR 77919, December 29, 2014). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to 1 percent of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock, while allowing that stock to reach or maintain its optimum sustainable population. While the listed fisheries do not specifically include the FMP or this rule, they involve gear similar to what is expected to be used in the Gulf.

With respect to marine mammals that are listed under the ESA, NMFS has determined that the fishing activities conducted under the FMP are not likely to adversely affect these species because they are extremely unlikely to overlap geographically with anticipated aquaculture sites. Any "takes" of threatened and endangered marine mammals would trigger reinitiation of the consultation.

In regard to migratory birds, there is currently no information that would indicate that offshore marine aquaculture will result in the "take" of migratory birds. Section 622.102(a)(1)(i)(G) of this rule requires permittees to regularly inspect approved aquaculture systems and report, within 24 hours, any entanglement or interaction with marine mammals, endangered species, or migratory birds within 24 hours of the event. This reporting will allow NMFS to determine if there are unanticipated interactions with migratory birds, assess the severity of any interactions, and identify solutions for addressing and preventing interactions.

*Comment 94:* Guidance documents should be reviewed regularly and include specific criteria such as the frequency of inspections for entanglement and interactions with protected species.

*Response:* NMFS agrees that guidance documents should be reviewed on a regular basis and will coordinate with other federal agencies, as needed, to do so. NMFS disagrees that guidance documents need to include criteria related to the frequency of inspections for entanglement and other interactions with protected species because those criteria are case-specific, and will be determined on a case-by-case basis and included as a

condition in individual permits.

### *Escapements*

*Comment 95:* One commenter stated that NMFS should require reporting of all escapes, while another stated that NMFS should require reporting when escapes exceed 5 percent of the admixed stock (wild and cultured animals).

*Response:* NMFS disagrees that it is necessary to require reporting of all escapes. Permittees are already required to report the escape, within a 24-hour period, of 10 percent of the fish from a single approved aquaculture system (e.g., one cage or one net pen) or 5 percent or more of the fish from all approved aquaculture systems combined, or the escape, within any 30-day period, of 10 percent or more of the fish from all approved aquaculture systems combined. These amounts should allow operations to effectively quantify whether or not losses have occurred. Specifying lower percentages would make it difficult for permittees to quantify when and if escapement has occurred. In addition, the current reporting requirement for escapes is in line with escape reporting requirements of other states with aquaculture facilities (e.g., Maine).

NMFS also disagrees that escapes should only be reported when they exceed 5 percent of the admixed stock for that

species. The number of escapes needed to trigger reporting suggested by the commenter is much higher than that approved in the FMP and this final rule and could result in many more fish escaping without requiring permittees to report to NMFS.

*Comment 96:* Escaped fish can displace other marine species and pollute wild fish genetics. Escapees will also compete with wild fish and other aquatic animals, and transmit disease and parasites to wild stocks.

*Response:* NMFS agrees that escaped fish have the potential to negatively impact wild stocks. However, as discussed in section 6.1. of the FMP, impacts of cultured escapees on wild stocks are expected to be minimal because this final rule requires that only native species are allowed for culture and broodstock must be sourced from the same population or sub-population that occurs where the operation is located. Further, prior to stocking fish in an approved aquaculture system, the permittee must provide documentation certifying that the fish are pathogen free.

*Comment 97:* Escaped fish should be treated as a pollutant, which would enable EPA to assess civil fines on facilities for escapes.

*Response:* Neither the FMP nor this final rule address the

definition of pollutant under the Clean Water Act or the EPA's authority to assess fines under that Act. Therefore, this comment is outside the scope of this rulemaking and will not be addressed further.

*Fallowing of Aquaculture Systems*

*Comment 98:* Permittees should have access to several marine sites to fallow properly.

*Response:* NMFS disagrees that several distinct aquaculture sites are necessary to fallow properly. The Council determined, and NMFS agrees, that the requirement in § 622.103(a)(3) of this final rule is sufficient to support any needed fallowing. That requirement specifies that permitted sites must be at least twice as large as the combined area encompassed by the aquaculture systems to allow operations to conduct fallowing at a different location within the designated site complex. If separate distinct sites were chosen for fallowing purposes, permittees would be required to repeat the siting process multiple times, which would include conducting multiple baseline environmental surveys and securing additional ACOE Section 10 and EPA NPDES permits. Thus, choosing separate fallowing sites would increase the time and cost associated with the permitting process while fallowing at a different location within the

designated site complex would achieve the same environmental objective at less cost.

*Comment 99:* Fallowing and rotation should be mandatory.

*Response:* NMFS disagrees. Nutrient loading and other impacts of aquaculture on the surrounding environment can be reduced or eliminated with proper siting of an operation. Should water quality and benthic data indicate that fallowing is necessary to reduce or eliminate nutrient loading, NMFS recommends the permittee implement fallowing and rotation as a best management practice. Section 622.103(a)(4) of this final rule also allows the RA to deny the use of a proposed site that will inhibit the dispersal of wastes and effluents.

#### *Genetically Engineered Animals*

*Comment 100:* Section 622.101(a)(2)(xv) of the proposed rule would require the applicant to certify that no genetically modified animals (changed to "genetically engineered animals" in § 622.2 and throughout this final rule) or transgenic animals are used or possessed for culture purposes at the aquaculture facility. This language should specify that "use" specifically applies to the propagation process and indicate that it applies to the act of propagation regardless of where it occurs.

*Response:* NMFS agrees the FMP and this final rule prohibit

the use of genetically engineered and transgenic animals in propagation activities used to stock aquaculture facilities. The term "aquaculture facility", as defined in § 622.2 of this final rule, includes all infrastructure used to "hold, propagate or rear aquaculture species". Thus, the prohibition on the "use" of genetically engineered and transgenic animals applies to the holding, propagation, or rearing of allowable aquaculture species regardless of where in the EEZ these activities occur.

*Comment 101:* NMFS should develop specific standards for the use of non-native species and genetically engineered animals for aquaculture.

*Response:* NMFS disagrees it is necessary to specify standards for use of genetically engineered animals because § 622.105(b) of this rule prohibits the culture of non-native species and genetically engineered animals in the Gulf EEZ.

*Comment 102:* Genetic testing should be required as a condition of permit approval to ensure that no genetically engineered animals are being cultured.

*Response:* NMFS disagrees. The Council determined, and NMFS agrees, the certifications required as part of the application process, along with the authority provided NMFS to conduct genetic testing at any time, are sufficient to safeguard against

genetic engineering activities. Specifically, applicants must certify that no genetically engineered or transgenic animals are used or possessed in the aquaculture facility, as specified in § 622.101(a)(2)(xv) of this rule. Applicants must also certify that they agree to immediately remove cultured animals remaining in allowable aquaculture systems from the Gulf EEZ, as required by NMFS, if it is discovered that the animals are genetically engineered or transgenic, as specified in § 622.101(a)(2)(xii)(A). At any time, NMFS may sample cultured animals to determine genetic lineage and will order the removal of all cultured animals upon a determination that genetically engineered or transgenic animals were used or possessed at the aquaculture facility, in accordance with § 622.108(a)(2).

*Comment 103:* NMFS should prohibit the use of animals that have been artificially altered, including, those altered by changes in ploidy, chemical or radiation mutagenesis, any selective breeding or assisted reproductive technologies (ART).

*Response:* NMFS disagrees that it is necessary to further restrict the use of artificially altered fish. The FMP and this final rule prohibit Gulf aquaculture operations from culturing genetically engineered or transgenic animals to reduce the potential impacts of cultured fish escapes on wild populations.

Section 622.2 of this final rule defines the term "genetically engineered animal" to be consistent with FDA's definition, which is "modified by rDNA techniques, including the entire lineage of animals that contain the modification". This definition does not prohibit the use of animals that have been artificially altered by changes in ploidy, chemical, or radiation mutagenesis, or any selective breeding or assisted reproductive technologies, unless these animals contain genes that have been introduced or otherwise altered by modern biotechnology. Broadening this definition to encompass changes in ploidy, chemical or radiation mutagenesis, any selective breeding or ART would restrict the ability to produce specific phenotypes suitable for aquaculture. Such techniques are commonly used in aquaculture and are not expected to result in significant risks to wild populations should escapement occur.

*Management Reference Points and Annual Production*

*Comment 104:* NMFS should assist the Councils in developing compliant processes by amending the National Standard 1 Guidelines under the Magnuson-Stevens Act to set forth a reasoned and scientifically rigorous process for determining reference points for aquaculture.

*Response:* Comments regarding changes to the National

Standard 1 guidelines are outside the scope of this rulemaking. However, NMFS notes that it is necessary to amend the National Standard 1 Guidelines to specifically address reference points for aquaculture. Section 600.310(h)(3) of National Standard 1 Guidelines recognizes that harvest from aquaculture operations may not fit the standard approaches to specifying reference points and management measures set forth in the guidelines and allows the Councils to propose alternative approaches for satisfying the National Standard 1 requirements. As explained in the preamble to the proposed rule, the Council selected an alternative approach to specifying reference points and management measures for the aquaculture fishery. NMFS has determined that the alternative approach selected by the Council is consistent with National Standard 1.

*Comment 105:* Both the 64-million lb (29-million kg) annual production limit and 20-percent production cap on a business, individual or entity should be increased or removed.

*Response:* The Council determined, and NMFS agrees, these production caps are needed to properly manage the development of the aquaculture fishery consistent with the provisions of the Magnuson-Stevens Act.

Theoretically, the Gulf has an offshore aquaculture

production capacity threshold which, if exceeded, could adversely affect wild stocks or the marine environment (e.g., water quality and habitat). When developing the FMP, the Council considered capping annual production (or OY/ACL) at various levels, ranging from 16 million lb (7.3 million kg) to 190 million lb (86 million kg), to constrain production below that threshold level.

As explained in the FMP, the Council set the production cap equal to 64 million lb (29 million kg), which represents the average landings of all marine species in the Gulf, except menhaden and shrimp, during 2000-2006. In the absence of specific information on the threshold level above which aquaculture could adversely affect wild stocks or the marine environment, the Council determined that setting an annual production cap based on the productivity of wild stocks would enable the fishery to proceed with caution while we obtain more information about the number and size of aquaculture operations, the production capacity of various aquaculture systems, and the environmental impacts and economic sustainability of aquaculture.

Although 64 million lb (29 million kg) is likely substantially less than the yield that can be achieved by

aquaculture operations over the long-term, this annual production cap is considered to be a short-term proxy and can be revisited by the Council at any time as new information becomes available. If planned production exceeds the cap in a given year, then NMFS will publish a control date to notify future participants that entry into the aquaculture fishery may be limited or restricted after the control date, and the Council will initiate review of the aquaculture program, and the annual limit, to determine whether the cap should be increased or some other action is appropriate.

The Council also evaluated various entity-specific production caps, ranging from 5- to 20-percent of the OY/ACL, to ensure entities do not obtain an excessive share of the OY/ACL, consistent with National Standard 4 of the Magnuson-Stevens Act. The Council determined that capping the production of businesses, individuals, and other entities at 20 percent of the OY/ACL will effectively ensure against possible anti-competitive effects resulting from a small number of entities accounting for most or all of the aquaculture production. The 20-percent entity-specific production cap will allow each business, individual, or other entity to produce up to 12.8 million lb (5.8 million kg) annually, and may be revisited in the future as

needed and appropriate.

*Comment 106:* The FMP should discuss what data or processes are needed to determine a meaningful MSY and OY for cultured animals. OY must be set at a level equal to or less than MSY to account for "any relevant social, economic, or ecological factors" and it (like other reference points) must account for risk as directed by National Standard 6. The FMP should also discuss how overfished and overfishing status will be determined for cultured fish and how this will be linked to the status of wild stocks.

*Response:* Section 4 of the FMP explains the challenge in applying management reference points and status determination criteria to cultured species because those parameters are designed to inform decisions about the level at which wild fish stocks can be routinely exploited without resulting in long-term depletion.

As discussed in the FMP, the Magnuson-Stevens Act was written in part to establish the legal framework for managing wild fisheries resources of the United States, and many of the principles and concepts that guide wild stock management are not generally applicable to the management of an aquaculture fishery. However, aquaculture falls within the definition of

"fishing" in the Magnuson-Stevens Act and is therefore subject to regulation by the fishery management councils and to the legal requirements to define management reference points and status determination criteria that will be used to assess fishery performance and status relative to the Magnuson-Stevens Act's mandates to prevent overfishing and achieve the OY from managed fisheries.

The FMP explains that all animals cultured are intended for harvest and there is no need to leave cultured animals in aquaculture systems to support future generations and guard against long-term depletion. However, it is conceivable that some level of aquaculture in the Gulf could adversely impact wild stocks or the marine environment. Therefore, the Council determined the most logical approach was to use proxies and define management reference points and status determination criteria for the aquaculture fishery in a way that is intended to constrain production below that critical threshold level.

The Council set the MSY of the Gulf aquaculture fishery at 64 million lb (29 million kg). This value is based on the productivity of wild stocks and equals the average landings of all marine species in the Gulf except menhaden and shrimp during 2000-2006. In the absence of specific information on the

threshold level above which aquaculture could adversely affect wild stocks or the marine environment, the Council determined that setting MSY based on the productivity of wild stocks would enable the fishery to proceed with caution while we obtain more information about the number and size of aquaculture operations, the production capacity of various aquaculture systems, and the environmental impacts and economic sustainability of aquaculture.

NMFS guidance at 50 CFR 600.310 states OY should be based on MSY as reduced by social, economic, and biological factors, with the most important limiting factor being that the choice of OY and the conservation and management measures proposed to achieve it must prevent overfishing. To the extent that harvesting MSY would result in adverse impacts to resources in the Gulf, OY may be reduced to a level where such adverse impacts do not occur. Because MSY is specified at a level that is believed to avoid such impacts, and all animals cultured are intended for harvest, the Council determined there are no social, economic, or ecological factors that support setting OY below MSY at this time.

Although 64 million lb (29 million kg) is likely substantially less than the yield that can be achieved by

aquaculture operations over the long-term, the FMP explains that both the MSY and OY values are considered to be short-term proxies, which the Council may revise at any time in the future as the aquaculture fishery develops and provides additional information on the number and size of aquaculture operations, the production capacity of various aquaculture systems, and the environmental impacts and economic sustainability of aquaculture. This precautionary and adaptive approach is consistent with NMFS guidance for implementing National Standard 6 at 50 CFR 600.335.

Also, because it is not possible to overharvest cultured animals, the Council determined the most logical way to assess the impacts of overharvest in aquaculture operations is not on the cultured fish actually harvested, but on the wild stocks remaining in the surrounding environment. The FMP specifies that NMFS will use overfished and overfishing criteria established in existing FMPs for wild stocks to determine if offshore aquaculture in the Gulf EEZ is adversely affecting wild fish populations, causing them to become overfished or undergo overfishing. If aquaculture operations are determined to cause such effects, then the Council and NMFS will take action(s) that could include, but are not limited to, reducing aquaculture

production levels, removing cultured animals containing pathogens, and reevaluating facility siting locations to avoid habitat degradation.

#### *State Involvement*

*Comment 107:* NMFS must acquire Coastal Zone Management Act (CZMA) consistency determinations from all of the Gulf states before the final rule is issued.

*Response:* NMFS agrees and determined the FMP is consistent to the maximum extent practicable with the enforceable policies of the approved coastal management program of Florida, Alabama, Mississippi, Louisiana, and Texas. This determination was submitted on February 24, 2009, for review by the responsible state agencies under section 307 of the CZMA. Florida, Alabama, Mississippi, and Louisiana responded that the measures in the FMP are consistent with their coastal management program. Texas has previously informed NMFS that the state's Coastal Coordination Council no longer reviews fishery management issues, therefore, in accordance with the provisions of 15 CFR 930.41, NMFS presumes concurrence.

*Comment 108:* NMFS should provide states advance notice of when animals are harvested or transported as these activities require transit across state waters. States should also have

access to monitoring and reporting records required by NMFS, and should be promptly notified of any pathogen or escape event, or other event that may pose a risk to state resources.

*Response:* NMFS will notify state law enforcement agencies in advance of aquaculture harvest and transport activities. Also, NMFS will notify the appropriate state agencies upon confirmation that a reportable pathogen discovery, major escapement event, or other event that may pose a risk to state resources, has occurred. Monitoring and reporting records are generally confidential under section 402(b) of the Magnuson-Stevens Act. However, the Magnuson-Stevens Act provides an exception that allows disclosure of confidential information to state employees, as necessary, to further the Department of Commerce's mission, subject to a confidentiality agreement that prohibits public disclosure of the identity or business of any person. The Magnuson-Stevens Act also provides an exception for employees of states that have entered into a fishery enforcement agreement with the Secretary of Commerce and that agreement is in effect. All of the Gulf states have confidentiality agreements and joint enforcement agreements in place and would therefore be authorized access to monitoring and reporting records, as needed, and consistent with those exceptions.

*Comment 109:* States should have the ability to approve or deny an application before NMFS' final approval.

*Response:* NMFS disagrees. States may provide comments on individual permits during the public comment period, but as with other NMFS permits, states will not have the ability to approve or deny an application. The RA will consult with the Council during the public comment period on specific permit applications as required in § 622.101(d)(2) of this final rule. Each state has a representative on the Council and NMFS will consider Council input and comments received when deciding whether to approve or deny a permit.

*Comment 110:* The proposed rule does not mention an "opt-out" provision for states, which means aquaculture may occur within 3 miles (5 km) of shore.

*Response:* NMFS disagrees. The FMP and rule pertain only to the Gulf EEZ which starts at 3 nautical miles from shore off the coast of Louisiana, Mississippi and Alabama and 9 nautical miles from shore off the coast of Texas and the west coast of Florida. Although some Gulf states have promulgated regulations to conduct aquaculture in state waters (e.g., Florida) others would need to do so before establishing a permitting system for aquaculture operations.

### *Restricted Access Zones*

*Comment 111:* NMFS should remove the prohibition on commercial or recreational fishing inside the "restricted access zone". Permittees should have the ability to negotiate access to their sites for fishing purposes if they so choose.

*Response:* The Council determined, and NMFS agrees, that restricted access zones are needed to afford some protection to an operation's equipment and the product being cultured, and to promote safety by reducing encounters between vessels and aquaculture equipment.

*Comment 112:* Restricted access zones will displace commercial and recreational fishermen from large areas of the ocean. Aquaculture operations will also attract fish away from their usual habitats and this will impact fishermen who cannot fish for these species within the boundaries of restricted access zones.

*Response:* NMFS recognizes that restricted access zones would displace fishermen from certain areas; however, the area utilized by the estimated 5-20 offshore aquaculture operations envisioned under the FMP is not expected to be significant considering the total area of the Gulf EEZ and is therefore not expected to result in significant displacement issues. NMFS will

consider the location of a proposed site relative to traditional fishing grounds during the permit review process and may deny use of a proposed site if it may result in user conflicts with commercial or recreational fishermen. Information used by NMFS for siting a facility in regard to proximity to commercial and recreational fishing grounds would include, but is not limited to, electronic logbooks from the shrimp fishery, logbook reported fishing locations, siting information from previously proposed or permitted aquaculture facilities, and other data that would provide information regarding how the site would interact with other fisheries, including public comments on the application.

Restricting access around a facility may protect species known to aggregate around aquaculture systems. However, the area encompassed by aquaculture systems is not expected to be significant compared to the Gulf EEZ as a whole. Although fishermen would be prohibited from fishing within restricted access zones, they could fish along the periphery of the operation, which would provide access to species which aggregate in the general area.

*Comment 113:* The size of the restricted access zone should be determined by NMFS and not correspond to the coordinates

specified in the ACOE Section 10 permit. The final rule should also specify how large restricted access zones should be and who will enforce them.

*Response:* The Council determined, and NMFS agrees, that setting the restricted access zone corresponding to the coordinates on the ACOE Section 10 permit is appropriate.

Per § 622.2 of this final rule, an aquaculture facility is defined as an installation or structure, including any aquaculture systems (including moorings), hatcheries, equipment, and associated infrastructure used to hold, propagate, or rear allowable aquaculture species. The Council wanted to establish a narrow area around the aquaculture facility that would afford some protection to aquaculture equipment and cultured animals as well as well as increase safety by reducing encounters between vessels and aquaculture equipment. While the ACOE Section 10 permit will delimit where aquaculture systems may be anchored to the sea floor, the Council action and this rule require that the applicant apply for an ACOE Section 10 permit that is twice as large as the combined area of the aquaculture systems in order to allow for best management practices such as the rotation of systems for fallowing. As such, the facility will be twice as large as the combined area of the aquaculture systems within it

but the boundary of the facility will be the same as the boundary of the ACOE Section 10 permit because this final rule requires that the applicant apply for an ACOE permit of that size.

NMFS anticipates that the ACOE will issue and enforce its Section 10 permit under its own authorities. NMFS is establishing and will enforce the restricted access zone under the authority of the Magnuson-Stevens Fishery Conservation and Management Act. The two processes are separate but, because, NMFS is requiring the applicant to apply for an ACOE Section 10 permit of a size that is coextensive with the definition of a facility (including being twice the size of the combined area of the aquaculture systems within it), NMFS is choosing to use the ACOE Section 10 permit coordinates as the same coordinates for the restricted access zone.

There is no predetermined size of the restricted access zone as it depends on the information contained in each permittee's Section 10 permit. Authorized officers have the authority to enforce restricted access zones. An "authorized officer" is defined in 50 CFR 600.10 as: (1) any commissioned, warrant, or petty officer of the USCG; (2) any special agent or fishery enforcement officer of NMFS; (3) any officer designated

by the head of any Federal or state agency that has entered into an agreement with the Secretary and the Commandant of the USCG to enforce the provisions of the Magnuson-Stevens Act or any other statute administered by NOAA; or (4) any USCG personnel accompanying and acting under the direction of any person described in (1).

*Comment 114:* NMFS should coordinate with the USCG in regards to siting offshore aquaculture facilities and marking "restricted access zones."

*Response:* NMFS agrees and is working with USCG and other Federal agencies as part of the Interagency Working Group's Aquaculture Regulatory Task Force to coordinate the siting, review and permitting of offshore aquaculture facilities, including marking of offshore aquaculture facilities and restricted access zones.

*Comment 115:* The USCG requests that § 622.104(a) be amended to state that the boundaries of the restricted access zone will correspond with the coordinates listed on the approved ACOE Section 10 permit associated with the aquaculture facility "and in addition, must ultimately be approved by the U.S. Coast Guard". The USCG also requests that § 622.104(c) be amended to state that the permittee must mark the restricted access zone

with a floating device such as a buoy at each corner of the zone  
"as authorized by the U.S. Coast Guard."

*Response:* NMFS disagrees that it is appropriate to require that the U.S. Coast Guard provide approval of the restricted access zone. As stated in the response to Comment 113, the Council determined, and NMFS agrees that a restricted access zone equal to coordinates on the ACOE Section 10 permit is appropriate because these coordinates define the boundary of the site where aquaculture operations may occur.

NMFS also agrees with the second part of this comment and has made the suggested change to § 622.104(c).

#### **Changes from the Proposed Rule**

In June 2015, NMFS consulted with the Council on the following fourteen changes from the proposed to final rule. At that time, the representative from Florida expressed concern about using FDA's definition of "genetically engineered animal" and submitted a comment on behalf of the Florida Fish and Wildlife Commission (FWC). FWC's comment stated that FDA's definition of "genetically engineered animal" was too narrowly defined because it did not encompass the use of "in vitro" nucleic acid techniques. NMFS consulted with FDA and has determined that the definition of "transgenic animal" in the FMP

and this final rule encompasses the use of "in vitro" techniques. Both "genetically engineered" and "transgenic" animals are prohibited for culture purposes in this final rule, therefore no change to the definition of "genetically engineered animal" is necessary.

The term "genetically modified organism" has been revised to "genetically engineered animal" throughout this final rule. The term "genetically engineered animal" is a more scientifically precise term, more accurately describes the use of modern biotechnology and is consistent with FDA terminology. In addition, the definition for "genetically engineered animal" has been added to § 622.2 and the definition for "genetically modified organism" has been removed from § 622.2. See NMFS response to Comment 2 above for the complete explanation.

Also, in § 622.2, the definition for "aquaculture" is modified slightly based on public comment. In the proposed rule, the definition stated, "aquaculture means all activities, including the operation of an aquaculture facility, involved in the propagation and rearing, or attempted propagation and rearing, of allowable aquaculture species in the Gulf EEZ." This wording can be interpreted to mean that to engage in "aquaculture," both propagation and rearing need to be

conducted. In this final rule, NMFS revises the definition of "aquaculture" by changing an "and" to an "or" in two places in this definition in § 622.2. This change clarifies that to engage in "aquaculture" requires only that propagation or rearing need to be conducted.

The definition of "aquaculture facility" in § 622.2 is modified based on public comment. In the proposed rule, the definition stated, "*Aquaculture facility* means an installation or structure, including any aquaculture system(s) (including moorings), hatcheries, equipment, and associated infrastructure used to hold, propagate, and rear allowable aquaculture species in the Gulf EEZ under authority of a Gulf aquaculture permit." This wording can be interpreted to mean that all three of these activities need to be conducted (holding, propagating, and rearing) to be considered an aquaculture facility. However, NMFS has determined that only one of these activities needs to be conducted to be considered an aquaculture facility. Therefore, in this final rule, NMFS revises "hold, propagate, and rear" to "hold, propagate, or rear."

NMFS is revising the definition of "significant risk" in § 622.2. When the Council reviewed and deemed this definition in February 2013, it stated: "significant risk means is likely to

adversely affect endangered or threatened species or their critical habitat; is likely to seriously injure or kill marine mammals; is likely to result in un-mitigated adverse effects on essential fish habitat; is likely to adversely affect wild fish stocks, causing them to become overfished or undergo overfishing; or otherwise may result in harm to public health or safety, as determined by the RA." The proposed rule contained a modification to this definition with respect to endangered and threatened species, defining "significant risk," in part, as "likely to jeopardize the continued existence of endangered or threatened species or adversely modify their critical habitat." The proposed rule also expressly solicited comments on this part of the definition. After considering public comments, and further internal review, NMFS has determined that the definition of "significant risk" as it relates to endangered and threatened species should be modified to reflect the text originally deemed by the Council. As explained in the response to Comment 1, this change will better align the ESA-related criterion in the definition with the criteria for marine mammals, EFH, wild fish stocks and public health and safety.

A prohibition has been added to § 622.13 to state that it is unlawful to land allowable aquaculture species cultured in

the Gulf at non-U.S. ports, unless first landed at a U.S. port. This prohibition was reasonably foreseeable because it was contained in the FMP and because the proposed rule included the requirement that a Gulf aquaculture dealer permit is necessary to first receive fish cultured at an aquaculture facility. Section 622.101(b) in the proposed rule provided that to obtain a Gulf aquaculture permit, "the applicant must have a valid state wholesaler's license in the state(s) where the dealer operates, if required by such state(s), and must have a physical facility at a fixed location in such state(s)." The references to a state wholesaler's license and physical facility at fixed location in the state are a clear indication that those authorized to first receive allowable aquaculture species must be located in the U.S.

In § 622.101, the requirement in paragraph (a)(2)(viii) is moved to paragraph (d)(3) of that section in this final rule, because the requirement to submit to NMFS a copy of currently valid Federal permits (e.g., ACOE Section 10 permit, and EPA NPDES permit), prior to issuance of a Gulf aquaculture permit, better fits in the permit issuance paragraph of the permits section of the aquaculture regulations.

In § 622.101(a)(2)(xiii), language is added that when

permittees provide certification information that all broodstock being used were originally harvested from U.S. waters of the Gulf, they must also certify that the broodstock came from the same population or subpopulation (based on the best scientific information available) where the facility is located, and that each individual broodstock was marked or tagged at the hatchery to allow for identification of those individuals used in spawning. This language was contained in the FMP and discussed in the preamble of the proposed rule; however, it was not in the proposed codified text. Based on public comment, NMFS determined this should be added to the regulations in the final rule. Also in this section, NMFS is changing "were originally harvested" to "will be or were originally harvested." This is intended to clarify that the applicant is not required to know the location of broodstock harvest at the time the application is submitted to NMFS but still ensures any broodstock used in the future will be from U.S. waters in the Gulf and from the same population or subpopulation where the facility is located.

In § 622.101(d)(2)(ii)(B), the language is revised. In the proposed rule, grounds for denial of a Gulf aquaculture permit include, "based on the best scientific information available, issuance of a permit would pose significant risk to the well-

being of wild fish stocks..." However, in this final rule, NMFS has removed "to the well-being of" to be consistent with the language in the preamble which states that NMFS may deny a permit that would "pose significant risk" to marine resources.

Throughout this final rule, NMFS changes "baseline environmental assessment" to "baseline environmental survey." Some public comments indicated that using the term "baseline environmental assessment" is confusing to the public because the term "environmental assessment" is used to refer to a document that may be prepared under the National Environmental Policy Act. To make it clear that the "baseline environmental assessment" required by this final rule is not the same as an "environmental assessment" that may be prepared under NEPA, the term is revised to "baseline environmental survey" in §§ 622.101(a)(2)(v) and 622.103(a)(4) of the regulations. In addition, this final rule clarifies that permittees are required to submit baseline environmental survey data to NMFS in accordance with procedures specified by NMFS in guidance which will be available on the Web site when the rule becomes effective.

Language has been added to § 622.102(a)(1)(i)(A) regarding record keeping and reporting requirements for aquaculture

facility owners and operators that permittees are to maintain and make available to NMFS or an authorized officer upon request a written or electronic daily record of the number of cultured animals introduced into and the total pounds and average weight of fish removed from each approved aquaculture system, including mortalities, for the most recent 3 years. This language was contained in the FMP and discussed in the preamble of the proposed rule but was not specifically contained in the codified text in the proposed rule. Therefore, NMFS adds this language to the regulations in this final rule.

Paragraph (D) has been added to § 622.102(a)(1)(i) regarding a harvest notification. NMFS is requiring that permittees record the date, time, and weight of cultured animals to be harvested and report this information to NMFS at least 72 hours prior to harvesting cultured animals from an aquaculture facility. This harvest notification is intended to aid law enforcement efforts. The notification would alert law enforcement in the case they wish to be present at the time of harvest at an aquaculture facility to verify that permittees are harvesting only cultured species and remain within their production cap. This 72-hour harvest notification was contained in the FMP and the preamble to the proposed rule but was not

contained in the codified text in the proposed rule. NMFS adds it to the codified text in this final rule.

Paragraph (H) has been added to § 622.102(a)(1)(i) regarding feed invoices for aquaculture operations. The preamble in the proposed rule stated that the original or copies of purchase invoices for feed must be provided to NMFS or an authorized officer upon request, and be maintained for a period of 3 years. However, this requirement was not included in the codified text in the proposed rule because NMFS included the reference to the EPA regulations at 40 CFR 451.21, which NMFS believed covered these feed reporting requirements. After further evaluation, NMFS has determined that the 3-year requirement to maintain the feed purchase invoices is not contained in the EPA regulations; therefore, NMFS has added that requirement to the regulations in this final rule.

In § 622.104(c), the caveat "as authorized by the USCG" is added to the requirement that the permittee must mark the restricted access zone with a floating device such as a buoy at each corner of the zone. This is intended to clarify that the floating devices used to mark the restricted access zone must be authorized by USCG.

NMFS is replacing the phrase "landed ashore" to the term

"offload". The proposed rule preamble stated that permittees participating in the aquaculture program would be allowed to "offload" cultured animals at aquaculture dealers only between 6 a.m. and 6 p.m., local time. However, the codified text in the proposed rule, and language in the FMP, stated that species cultured at an aquaculture facility can only be "landed ashore" between 6 a.m. and 6 p.m., local time, because at the time the FMP was written, it was determined that "land" was the appropriate term. NMFS has determined that using the more precise term "offload" in this context is consistent with the objective of the requirement, which is to aid enforcement, while allowing vessels the flexibility to arrive at the dock at any time. By restricting offloading times, law enforcement will be able to ensure that vessels are landing only cultured species (e.g., secure tissue samples to be tested against broodstock DNA). Using the term "offload" is also consistent with similar requirements in the Gulf red snapper and grouper/tilefish individual fishing quota programs. For the purposes of this requirement, NMFS is defining the terms "offload" in § 622.106(a)(14) to mean to remove cultured animals from a vessel.

In addition to the changes described above, NMFS is making an administrative change to the permitting process in response

to several comments regarding the permit duration, some of which stated that the initial 10-year permit term is not long enough to secure financing and others which stated that the permit term should be a shorter period to ensure permits are thoroughly reviewed on a more frequent basis. NMFS is modifying the requirements in § 622.101(d)(3)(iii) to allow the applicant to defer initial issuance of a Gulf aquaculture permit for up to 2 years from the date the RA notifies the applicant of the decision to grant the permit. Specifically, NMFS is adding language to the end of this provision which states that the initial permit will be issued 30 days after the RA notifies the applicant of the decision to grant the permit, unless NMFS receives a written request from the applicant before the end of the 30 day period to defer issuance of the permit. If the applicant requests a deferral, NMFS will include this information in the notification of permit approval published in the Federal Register as specified in paragraph (d)(2)(ii) and will publish a Federal Register notice upon permit issuance. Permit issuance will be deferred for two years from the date of the RA notification unless the applicant sends a written request to NMFS to issue the permit at an earlier date. This written request must be received by NMFS at least 30 days prior to the

date the applicant desires the permit to be effective.

This change is intended to allow permit holders additional time to secure financing and prepare for production without changing the 10-year effective period of the initial issuance. This change will not modify the requirement to have a valid permit to engage in the activities specified in the rule, such as deploying or operating an aquaculture facility in the Gulf EEZ, harvesting wild broodstock, and selling allowable aquaculture species. This change was reasonably foreseeable because the 10-year initial permit term has been subject to substantial public debate, putting interested persons on notice that NMFS may revise the regulations to address concerns that it may take several years for an applicant to be ready to start operations once the permit is granted while maintaining the 10-year permit term specified in the FMP and included in the proposed rule. The proposed rule did not specify when permits would be issued. The public may have inferred that a permit would be issued contemporaneously with the decision to grant the permit. However, the proposed rule provided for an extended review time and required that applicants submit complete application materials at least 180 days prior to the date they wished the permit to become effective. The proposed rule also

required that the applicant obtain other Federal permits applicable to the proposed aquaculture site before issuance of the Gulf aquaculture permit. Therefore, the concept of a permit being issued and effective well after completion of the application was part of both the agency's and the public's deliberation on this issue.

In the proposed rule, NMFS estimated the time to prepare a Federal Permit Application for Offshore Aquaculture in the Gulf of Mexico, including the supporting documentation (baseline environmental survey, assurance bond, contract with aquatic animal health expert, emergency disaster plan) to be approximately 33 hours. However, based upon public comment received, NMFS understands that the time to complete these requirements was underestimated. The time to complete the Federal Permit application for Offshore Aquaculture in the Gulf of Mexico remains 3 hours, however, NMFS has recalculated the time to complete the assurance bond, contract with aquatic animal health expert, and emergency disaster plan to be 39 hours total, not including the baseline environmental survey. NMFS estimates the time to complete the baseline environmental survey (collecting data and analyses) could take up to 320 hours (the proposed rule had included an estimate of 24 hours), depending

on the location and size of the proposed site. NMFS also added the following to the collections and associated public time burden table: notification to delay permit issuance, Marine Mammal Authorization Program form (OMB Control No. 0648-0292), pinger/location device, marking restricted access zone, and genetic testing requirements.

### **Classification**

The Regional Administrator, Southeast Region, NMFS, has determined that this final rule is necessary for the conservation and management of wild and cultured fisheries in the Gulf EEZ and is consistent with the FMP, the Magnuson-Stevens Act and other applicable law.

This final rule has been determined to be significant, but not economically significant, for purposes of Executive Order 12866 because it may raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

In compliance with section 604 of the RFA, NMFS prepared a FRFA for this final rule. The FRFA uses updated information, when available, and analyzes the anticipated economic impacts of the final actions and any significant economic impacts on small entities. The FRFA is below.

1) *A statement of the need for, and objections of, the rule.*

The description of the action, why it is being considered and the legal basis for the rule are contained in the preamble of the proposed rule and in the **Supplementary Information** section of the preamble of this final rule.

2) *A statement of the significant issues raised by the public comments in response to the IRFA, a statement of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments.*

NMFS did not receive any comments in response to the IRFA.

3) *The response of the agency to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration in response to the proposed rule.*

NMFS consulted with the Small Business Administration's (SBA) Chief Counsel for Advocacy during drafting of the proposed rule; NMFS addressed the Chief Counsel's comments within the proposed rule. No comments were filed by the Chief Counsel in response to the published proposed rule.

4) *A description of and an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available.*

First, this rule will apply to businesses that seek to locate aquaculture or hatchery operations in the Gulf EEZ. These businesses engage in finfish farming and hatcheries (NAICS 112511) and shellfish farming and hatcheries (NAICS 112512). Second, this rule will apply to businesses that seek to purchase cultured animals from the Gulf EEZ. These businesses are expected to be fish and seafood merchant wholesalers (NAICS 424460), fresh and frozen seafood processors (NAICS 311712), supermarkets and other grocery (NAICS 445110), fish and seafood markets (NAICS 445220), warehouse clubs and superstores (NAICS 452910), and full-service restaurants (NAICS 722110). Third, this rule will apply to businesses that engage in commercial and for-hire finfish and shellfish fishing (NAICS 114111, 114112, 114119, and 487210) in the Gulf EEZ because this final rule establishes restricted access zones. The SBA small business size standards for these industries are stated in the following table.

Industry	NAICS Code	SBA small business size standard
<b>Aquaculture and Hatchery Permit</b>		
Finfish Farming & Hatcheries .....	112511	\$0.75 million
Shellfish Farming & Hatcheries .....	112512	\$0.75 million

<b>Dealer Permit</b>		
Seafood Product Preparation & Packaging..	311712	500 employees
Fish and Seafood Merchant Wholesalers.....	424460	100 employees
Supermarkets and Other Grocery .....	445110	\$32.5 million
Fish and Seafood Markets .....	445220	\$7.5
Warehouse Clubs and Superstores .....	452910	\$29.5 million
Full Service Restaurants .....	722511	\$7.5 million
<b>Restricted Access Zones</b>		
Finfish Fishing .....	114111	\$20.5 million
Shellfish Fishing .....	114112	\$5.5 million
Other Marine Fishing .....	114119	\$7.5 million
Charter boat fishing.....	487210	\$7.5 million

At present, there are no businesses, large or small, with offshore aquaculture or hatchery operations in the Gulf EEZ and none that purchase cultured animals from the Gulf EEZ.

Although unused oil and gas platforms in the Gulf EEZ could provide initial structures for offshore hatcheries, it is expected that hatcheries used by offshore aquaculture operations will be land-based, and the start-up and operating costs of offshore hatcheries, if any, would greatly exceed the SBA size standard of \$0.75 million in average annual receipts.

NMFS estimates that because of distances from shore, depths of waters, Gulf weather and sea conditions, and other environmental factors, the smallest economically viable offshore aquaculture operation in the Gulf EEZ would raise finfish in 6 cages, requiring an initial investment of \$2.89 million (\$1.5 million for an aquaculture support vessel, \$0.96 million for six cages and associated equipment, \$0.33 million for land and onshore support facilities, and \$0.1 million for service vessels). Total variable cost (feed, fingerlings, trips to and from cages, etc.) for one grow-out cycle is expected to exceed \$1 million. These figures exceed the SBA size standard for businesses in finfish aquaculture which is no more than \$0.75 million in average annual receipts. Although technological improvements, such as automated systems, selective breeding, and alternative feeds, have and will continue to reduce the above estimated costs, the changes have not reduced start-up and operating costs below the size standard.

Based on the above estimates of the magnitude of initial investment and operating costs, NMFS expects that any businesses that would seek to develop and locate an aquaculture or hatchery operation in the Gulf EEZ would not be considered small businesses under the SBA size standards.

As of March 31, 2015, there are 296 businesses with a Gulf and South Atlantic dealer permit. The numbers of vessels with a Gulf fishing permit are used to estimate that up to 7,352 vessels and businesses engaged in commercial fishing and up to 2,836 vessels and businesses engaged in for-hire fishing could be directly regulated by the rule. Although the actual number of businesses is expected to be less than those figures, NMFS expects a substantial number of the businesses that operate these fishing vessels have annual revenues less than the relevant SBA small business size standard, and, therefore, are small businesses.

*5) A description of the projected reporting, recordkeeping, and other compliance requirements of the rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record.*

This rule will require any small business that intends to purchase farmed fish or shellfish from the Gulf EEZ at the first point of sale to apply for and be issued a Gulf aquaculture dealer permit. The additional annual cost to any of the existing dealers that applies for the aquaculture dealer permit will be

\$12.50, and the only additional information required by the dealer will be to check the box requesting a Gulf aquaculture permit.

The cost to any small business that is not currently a dealer will be \$50.00 annually. It is estimated that the average time required by these businesses to complete the application for an annual Gulf aquaculture dealer permit will be 20 minutes, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and reviewing the collection of information. The Gulf aquaculture dealer application requirements are consistent with existing dealer application requirements and no special skills are required to prepare a dealer permit application.

This rule will also prohibit a small business's fishing vessel from fishing or transiting within the restricted access zone of an offshore aquaculture facility, unless the vessel has a copy of that facility's aquaculture permit onboard.

*6) A description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the*

*alternative adopted in the final rule and why each of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.*

As stated in the IRFA, NMFS expects this rule will not have a significant adverse economic impact on a substantial number of small entities. Although the rule could potentially reduce annual dockside revenues and increase transportation costs for small businesses in commercial and for-hire fishing if the zones are located in traditional fishing and transiting areas, NMFS may deny use of a proposed site if it is found to result in user conflicts with commercial or recreational fishermen or other marine resource users.

Three alternatives, including the status quo no-action alternative, were considered for the action to establish a Gulf aquaculture permit. This rule would support the development of a commercial offshore aquaculture industry in the Gulf EEZ by creating a transferrable permit that authorizes commercial offshore aquaculture and hatchery operations in Federal waters of the Gulf. The no-action alternative would not support the development of a commercial offshore aquaculture industry in the Gulf EEZ, because the only existing means of permitting similar

activities, an Exempted Fishing Permit (EFP) or a Letter of Acknowledgment, are not viable options for authorizing commercial offshore aquaculture or hatchery operations. The third alternative would support the development of commercial offshore aquaculture in the Gulf EEZ by creating two transferrable permits - an operations permit and a siting permit - with separate processes. However, the separation of the permitting process would be expected to increase the time and costs required to obtain the necessary permits to engage in commercial offshore aquaculture and could generate unexpected negative consequences such as creating compatibility issues between approved operation plans and permitted sites (e.g., aspects of a specific operation plan may only be appropriate if the operation is to occur at a certain site).

Three alternatives, including the status quo no-action alternative, were considered for the action to establish marine aquaculture and hatchery siting requirements and conditions. The rule would restrict the areas where aquaculture and hatcheries can occur, the distance between sites, and the total area of each site in the Gulf EEZ. The no-action alternative would allow offshore aquaculture and hatchery facilities to be located anywhere the ACOE would permit, potentially including historical

or recently important fishing areas. This alternative would have the greatest potential of directly impacting fishing by allowing aquaculture and hatchery operations to be located in important harvest areas. The third alternative would establish marine aquaculture zones and restrict aquaculture and hatchery sites to these zones. Although the third alternative would establish zones that do not conflict with important fishing areas, this alternative would reduce the flexibility of site location, which could require the use of inferior sites with higher start-up and operational costs. Also, confining aquaculture and hatchery operations to designated zones could result in density problems with associated environmental and economic costs. The rule would give aquaculture and hatchery operations greater flexibility in locating their operations than the third alternative, and would be expected to reduce or eliminate the siting of aquaculture and hatchery facilities in important fishing areas, which would reduce or eliminate any direct costs this alternative would impose on commercial and for-hire fishing businesses that fish in these important areas.

Four alternatives, including the status quo no-action alternative, were considered for the action to specify the species allowed for aquaculture and included in the Aquaculture

FMU. This rule would allow the aquaculture and inclusion in the Aquaculture FMU of all species native to the Gulf that are managed by the Council, except shrimp and corals. The no-action alternative would allow the aquaculture of any species native to the Gulf and not develop an Aquaculture FMU. The third alternative would restrict the set of allowable species for aquaculture and inclusion in the Aquaculture FMU to species native to the Gulf and in the reef fish, red drum, and coastal migratory pelagics FMPs. This alternative would allow the smallest number of species to be aquacultured among the alternatives considered, which could result in the smallest economic benefit to offshore aquaculture operations and, conversely, the smallest amount of direct competition with Gulf fishermen. The fourth alternative would allow the aquaculture and inclusion in the Aquaculture FMU of all species native to the Gulf that are managed by the Council, except goliath and Nassau grouper, shrimp, and corals. This alternative would allow the aquaculture of more species than the third alternative but fewer species than the no-action alternative. This rule will allow for the aquaculture of the second largest number of species among the alternatives considered, which represents, potentially, the second highest economic benefit to offshore

aquaculture operations and second highest potential economic costs to Gulf fishermen as a result of market competition and other externalities. The species prohibitions of the rule, however, are consistent with the understanding that shrimp aquaculture is more appropriate for land-based systems, and coral harvest, except as allowed under a live rock permit or for scientific research, is prohibited in the Gulf EEZ.

Two alternatives, including the status quo no-action alternative, and multiple sub-alternatives were considered for the action to establish a production cap for individual entities. This rule will limit the annual production of an individual entity or corporation to 12.8 million lb (5.8 million kg), round weight, which is 20 percent of the maximum 64 million lb (29 million kg), round weight, OY. The no-action alternative would not limit the production of individual entities. The two sub-alternative production caps would establish lower caps than the rule, limiting the production by an individual entity to either 5 or 10 percent of the OY. Each of these sub-alternatives would be expected to result in lower economic benefits to aquaculture producers and associated businesses, because the lower caps may adversely affect the ability to take advantage of greater economies of scale. Conversely, the lower the cap, the

greater the number of potential individual aquaculture producers and associated potential increase in economic and social benefits derived from increased competition. The 20-percent cap implemented in this final rule was selected by the Council as a reasonable limit on production concentration while still enabling the potential realization of economy-of-scale benefits.

This final rule contains collection-of-information requirements subject to the PRA, which have been approved by OMB under control number 0648-0703.

The collections and the associated estimated average public reporting burden per response are provided in the following table.

COLLECTION REQUIREMENT	ESTIMATED BURDEN PER RESPONSE
Federal Permit Application for Offshore Aquaculture in the Gulf of Mexico (for new permits and renewals)	3 hours
Notification to Delay Permit Issuance	10 minutes
Annual Report	10 minutes
Baseline Environmental Survey	320 hours
Certification for Broodstock and Juveniles	10 minutes
Request to Harvest Broodstock	30 minutes

COLLECTION REQUIREMENT	ESTIMATED BURDEN PER RESPONSE
Broodstock Post-Harvest Report	30 minutes
Request to Transfer Gulf Aquaculture Permit	3 hours
Notification of Entanglement or Interaction	30 minutes
Marine Mammal Authorization Program Form	10 minutes
Notification of Major Escapement Event	30 minutes
Notification of Reportable Pathogen Episode	30 minutes
Notification to Transport Cultured Juveniles to Offshore Systems	10 minutes
Harvest and Landing Notification	30 minutes
Bill of Lading	5 minutes
Dealer Permit Application	30 minutes
Dealer Report for Landing and Sale	30 minutes
Assurance Bond	16 hours
Contract with Aquatic Animal Health Expert	16 hours
Emergency Disaster Plan	4 hours
Fin Clip Samples	10 hours
Broodstock Marking Requirement	8 hours
Pinger/Location Device	8 hours
Marking Restricted Access Zone	8 hours

COLLECTION REQUIREMENT	ESTIMATED BURDEN PER RESPONSE
Genetic Testing	8 hours

NMFS has recalculated the estimated time it will take to prepare a permit application and supporting documents (assurance bond, contract with a certified aquatic animal health expert, emergency disaster plan) to be approximately 39 hours (3 hours for the application, 16 hours each for the assurance bond and contract with certified aquatic animal health expert, and 4 hours for the emergency disaster plan). This estimate does not include the time necessary to complete a baseline environmental survey.

NMFS estimates that the time to complete the baseline environmental survey (collecting data and analyses) could take up to 320 hours (the proposed rule had included an estimate of 24 hours), depending on the location and size of the proposed site.

These estimates of the public reporting burden include the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collections-of-information.

Notwithstanding any other provision of law, no person is required to respond to, nor shall a person be subject to a penalty for failure to comply with, a collection-of-information subject to the requirements of the PRA, unless that collection-of-information displays a currently valid OMB control number.

Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 states that, for each rule or group of related rules for which an agency is required to prepare a FRFA, the agency shall publish one or more guides to assist small entities in complying with the rule, and shall designate such publications as small entity compliance guides. As part of the rulemaking process, NMFS prepared a fishery bulletin, which also serves as a small entity compliance guide. The fishery bulletin will be sent to all interested parties.

### **List of Subjects**

#### *50 CFR Part 600*

Administrative practice and procedures, Confidential business information, Fisheries, Fishing, Fishing vessels, Foreign relations, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Statistics.

#### *50 CFR Part 622*

Aquaculture, Fisheries, Fishing, Gulf of Mexico, Reporting

and recordkeeping requirements.

Dated: January 4, 2016.

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Samuel D. Rauch III,  
Deputy Assistant Administrator for Regulatory Programs,  
National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR parts 600 and 622 are amended as follows:

**PART 600--MAGNUSON-STEVENSON ACT PROVISIONS**

1. The authority citation for part 600 continues to read as follows:

**Authority:** 5 U.S.C. 561 and 16 U.S.C. 1801 *et seq.*

2. In § 600.725, in paragraph (v), in the table under the heading "IV. Gulf of Mexico Fishery Management Council", the entry "21. Offshore aquaculture (FMP)" is added to read as follows:

**§ 600.725 General prohibitions.**

\* \* \* \* \*

(v) \* \* \*

Fishery	Authorized gear types
* * * * *	
<b>IV. Gulf of Mexico Fishery Management Council</b>	
* * * * *	
21. Offshore aquaculture (FMP)	Cages, net pens
* * * * *	

\* \* \* \* \*

**PART 622--FISHERIES OF THE CARIBBEAN, GULF OF MEXICO, AND SOUTH ATLANTIC**

3. The authority citation for part 622 continues to read as follows:

**Authority:** 16 U.S.C. 1801 *et seq.*

4. In § 622.1, in Table 1, an entry for "FMP for Regulating Offshore Marine Aquaculture in the Gulf" is added in alphabetical order to read as follows:

**§ 622.1 Purpose and scope.**

\* \* \* \* \*

**Table 1 to § 622.1--FMPs Implemented Under Part 622**

FMP title	Responsible fishery management council(s)	Geographical area
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\* \* \* \* \*

FMP for Regulating Offshore Marine Aquaculture in the Gulf	GMFMC	Gulf
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\* \* \* \* \*

5. In § 622.2, definitions for "Aquaculture", "Aquaculture facility", "Aquaculture system", "Aquatic animal health expert", "Cultured animals", "Genetically engineered animal", "Significant risk", "Transgenic animal" and "Wild fish" are added in alphabetical order to read as follows:

**§ 622.2 Definitions and acronyms.**

\* \* \* \* \*

*Aquaculture* means all activities, including the operation of an aquaculture facility, involved in the propagation or rearing, or attempted propagation or rearing, of allowable aquaculture species in the Gulf EEZ.

*Aquaculture facility* means an installation or structure, including any aquaculture system(s) (including moorings),

hatcheries, equipment, and associated infrastructure used to hold, propagate, or rear allowable aquaculture species in the Gulf EEZ under authority of a Gulf aquaculture permit.

*Aquaculture system* means any cage, net pen, enclosure, structure, or gear deployed in waters of the Gulf EEZ for holding and producing allowable aquaculture species.

\* \* \* \* \*

*Aquatic animal health expert* means a licensed doctor of veterinary medicine or a person who is certified by the American Fisheries Society, Fish Health Section, as a "Fish Pathologist" or "Fish Health Inspector."

\* \* \* \* \*

*Cultured animals* means animals which are propagated and/or reared by humans.

\* \* \* \* \*

*Genetically engineered animal* means an animal modified by rDNA techniques, including the entire lineage of animals that contain the modification. The term genetically engineered animal can refer to both animals with heritable rDNA constructs and animals with non-heritable rDNA constructs (e.g., those modifications intended to be used as gene therapy).

\* \* \* \* \*

*Significant risk* means likely to adversely affect endangered or threatened species or their critical habitat; is likely to seriously injure or kill marine mammals; is likely to result in un-mitigated adverse effects on essential fish habitat; is likely to adversely affect wild fish stocks and cause them to become overfished or undergo overfishing; or otherwise may result in harm to public health or safety, as determined by the RA.

\* \* \* \* \*

*Transgenic animal* means an animal whose genome contains a nucleotide sequence that has been intentionally modified in vitro, and the progeny of such an animal.

\* \* \* \* \*

*Wild fish* means fish that are not propagated or reared by humans.

\* \* \* \* \*

6. In § 622.4, in the introductory text, a sentence is added after the second sentence to read as follows:

**§ 622.4 Permits and fees--general.**

\* \* \* See subpart F of this part for permit requirements related to aquaculture of species other than live rock. \* \* \*

\* \* \* \* \*

7. In § 622.13, paragraphs (pp) and (qq) are revised and paragraphs (rr) and (ss) are added to read as follows:

**§ 622.13 Prohibitions--general.**

\* \* \* \* \*

(pp) Fail to comply with any provision related to the Offshore Marine Aquaculture program in the Gulf of Mexico as specified in this part.

(qq) Falsify any information required to be submitted regarding the Offshore Marine Aquaculture program in the Gulf of Mexico as specified in this part.

(rr) Land allowable aquaculture species cultured in the Gulf at non-U.S. ports, unless first landed at a U.S. port.

(ss) Fail to comply with any other requirement or restriction specified in this part or violate any provision(s) in this part.

8. Subpart F is added to read as follows:

**Subpart F--Offshore Marine Aquaculture in the Gulf of Mexico**

**Sec.**

**622.100 General.**

**622.101 Permits.**

**622.102 Recordkeeping and reporting.**

**622.103 Aquaculture facilities.**

**622.104 Restricted access zones.**

**622.105 Allowable aquaculture systems and species.**

**622.106 Aquaculture operations.**

**622.107 Limitation on aquaculture production.**

**622.108 Remedial actions.**

**622.109 Adjustment of management measures.**

**§ 622.100 General.**

This subpart provides the regulatory structure for enabling environmentally sound and economically sustainable aquaculture in the Gulf EEZ. Offshore marine aquaculture activities are authorized by a Gulf aquaculture permit or Gulf aquaculture dealer permit issued under § 622.101 and are conducted in compliance with the provisions of this subpart. Aquaculture of live rock is addressed elsewhere in this part and is exempt from the provisions of this subpart.

(a) *Electronic system requirements.* (1) The administrative functions associated with this aquaculture program, e.g., registration and account setup, landing transactions and most reporting requirements, are intended to be accomplished online via the Southeast Regional Office's Web site at [http://sero.nmfs.noaa.gov/sustainable\\_fisheries/gulf\\_fisheries/a](http://sero.nmfs.noaa.gov/sustainable_fisheries/gulf_fisheries/a)

*quaculture/*; therefore, a participant must have access to a computer and Internet access and must set up an appropriate online aquaculture account to participate. Assistance with online functions is available from the Permits Office, Monday through Friday between 8 a.m. and 4:30 p.m. eastern time; telephone: 1(877)376-4877. If some online reporting functions are not available at the time of initial implementation of this aquaculture program, this will be indicated on the Web site and participants may comply by submitting the required information via email using the appropriate forms that are available on the Web site. Once online functions are available, participants must comply by using the online system unless alternative methods are specified.

(2) The RA will mail each person who is issued a Gulf aquaculture permit or a Gulf aquaculture dealer permit information and instructions pertinent to using the online system and setting up an online aquaculture account. The RA also will mail each permittee a user identification number and will provide each permittee a personal identification number (PIN) in a subsequent letter. Each permittee must monitor his/her online account and all associated messages and comply with all online reporting requirements.

(3) During catastrophic conditions only, the RA may authorize use of paper-based components for basic required functions as a backup to what would normally be reported electronically. The RA will determine when catastrophic conditions exist, the duration of the catastrophic conditions, and which participants or geographic areas are deemed affected by the catastrophic conditions. The RA will provide timely notice to affected participants via publication of notification in the **Federal Register**, NOAA weather radio, fishery bulletins, and other appropriate means and will authorize the affected participants' use of paper-based components for the duration of the catastrophic conditions. NMFS will provide each aquaculture permittee the necessary paper forms, sequentially coded, and instructions for submission of the forms to the RA. The paper forms also will be available from the RA. The program functions available to participants or geographic areas deemed affected by catastrophic conditions may be limited under the paper-based system. Assistance in complying with the requirements of the paper-based system will be available via the Permits Office, Monday through Friday between 8 a.m. and 4:30 p.m., eastern time; telephone: 1(877)376-4877.

(b) [Reserved]

**§ 622.101 Permits.**

(a) *Gulf aquaculture permit.* For a person to deploy or operate an aquaculture facility in the Gulf EEZ or sell or attempt to sell, at the first point of sale, an allowable aquaculture species cultured in the Gulf EEZ, a Gulf aquaculture permit must have been issued to that person for that aquaculture facility, and the permit must be prominently displayed and available for inspection at the aquaculture facility. The permit number should also be included on the buoys or other floating devices used to mark the restricted access zone of the operation as specified in § 622.104(c).

(1) *Eligibility requirement for a Gulf aquaculture permit.* Eligibility for a Gulf aquaculture permit is limited to U.S. citizens as defined in the Immigration and Nationality Act of 1952, as amended, and permanent resident aliens lawfully accorded the privilege of residing permanently in the U.S. in accordance with U.S. immigration laws.

(2) *Application for a Gulf aquaculture permit.* Application forms are available from the RA. A completed application form and all required supporting documents must be submitted by the applicant (in the case of a corporation, an officer; in the case of a partnership, a general partner) to the RA at least 180 days

prior to the date the applicant desires the permit to be effective. An applicant must provide all information indicated on the application form including:

(i) Applicant's name, address, and telephone number.

(ii) Business name, address, telephone number, date the business was formed, and, if the applicant is a corporation, corporate structure and shareholder information.

(iii) Information sufficient to document eligibility as a U.S. citizen or permanent resident alien.

(iv) Description of the exact location (*i.e.*, global positioning system (GPS) coordinates) and dimensions of the proposed aquaculture facility and proposed site, including a map of the site to scale.

(v) A baseline environmental survey of the proposed aquaculture site. The assessment must be conducted, and the data, analyses, and results must be summarized and presented, consistent with the guidelines specified by NMFS. NMFS' guidelines will include methods and procedures for conducting diver and video surveys, measuring hydrographic conditions, collecting and analyzing benthic sediments and infauna, and measuring water quality characteristics. The guidelines will be available on the Web site and from the RA upon request.

(vi) A list of allowable aquaculture species to be cultured; estimated start up production level by species; and the estimated maximum total annual poundage of each species to be harvested from the aquaculture facility.

(vii) Name and address or specific location of each hatchery that would provide juvenile animals for grow-out at the proposed aquaculture facility located within the Gulf EEZ and a copy of all relevant, valid state or Federal aquaculture permits issued to the hatchery.

(viii) A description of the aquaculture system(s) to be used, including the number, size and dimensions of the aquaculture system(s), a description of the mooring system(s) used to secure the aquaculture system(s), and documentation of the aquaculture system's ability to withstand physical stress, such as hurricanes, wave energy, etc., including a copy of any available engineering analysis.

(ix) A description of the equipment and methods to be used for feeding, transporting, maintaining, and removing cultured species from aquaculture systems.

(x) A copy of the valid USCG certificate of documentation or, if not documented, a copy of the valid state registration certificate for each vessel involved in the aquaculture

operation; and documentation or identification numbers for any aircraft or vehicles involved.

(xi) Documentation certifying that:

(A) the applicant agrees to immediately remove cultured animals remaining in approved aquaculture systems from the Gulf EEZ as ordered by the RA if it is discovered that the animals are genetically engineered or transgenic;

(B) the applicant agrees to immediately remove cultured animals remaining in approved aquaculture systems from the Gulf EEZ as ordered by the RA if fish are discovered to be infected with a World Organization of Animal Health (OIE) reportable pathogen that represents a new detection in the Gulf or a new detection for that cultured species in the U.S. is found at the facility, or additional pathogens that are subsequently identified as reportable pathogens in the National Aquatic Animal Health Plan (NAAHP), or any other pathogen determined by NMFS and APHIS to pose a significant threat to the health of wild aquatic organisms; and,

(C) the applicant agrees to immediately remove all components of the aquaculture system and cultured animals remaining in approved aquaculture systems from the Gulf EEZ as ordered by the RA if there are any other violations of the

permit conditions or regulations other than those listed in paragraphs (a) (2) (xi) (A) and (B) of this section which causes the RA to order such removal.

(xii) Documentation certifying the applicant has obtained an assurance bond sufficient to cover the costs of removal of all components of the aquaculture facility, including cultured animals remaining in approved aquaculture systems, from the Gulf EEZ. The assurance bond would not be required to cover the costs of removing an oil and gas platform. The RA will provide applicants a form and associated guidance for complying with the assurance bond requirement. The applicant must also provide documentation certifying the applicant has established a standby trust fund into which any payments made towards the assurance bond can be deposited. The trustee of the standby trust may not be the same entity as the permittee. The assurance bond is payable at the discretion of the RA to a designee as specified in the bond or to a standby trust. When the RA directs the payment into a standby trust, all amounts paid by the assurance bond provider must be deposited directly into the standby trust fund for distribution by the trustee in accordance with the RA's instructions. A permittee will be deemed to be without the required financial assurance in the event of bankruptcy of the

trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the assurance bond. The permittee must establish other financial assurance within 60 days after such an event.

(xiii) Certification by the applicant that all broodstock, or progeny of such wild broodstock, used to provide juveniles to the aquaculture facility will be or were originally harvested from U.S. waters of the Gulf, and will be or were from the same population or subpopulation (based on the best scientific information available) where the facility is located, and that each individual broodstock was marked or tagged at the hatchery to allow for identification of those individuals used in spawning.

(xiv) Certification by the applicant that no genetically engineered or transgenic animals are used or possessed for culture purposes at the aquaculture facility.

(xv) Copy of a contractual arrangement with an identified aquatic animal health expert to provide services to the aquaculture facility has been obtained. A copy of the license or certification also must be provided to NMFS.

(xvi) A copy of an emergency disaster plan, developed for

and to be used by the operator of the aquaculture facility, that includes, procedures for preparing or if necessary removing aquaculture systems, aquaculture equipment, and cultured animals in the event of a disaster (e.g., hurricane, tsunami, harmful algal bloom, chemical or oil spill, etc.);

(xvii) Any other information concerning the aquaculture facility or its operations or equipment, as specified on the application form.

(xviii) Any other information that may be necessary for the issuance or administration of the Gulf aquaculture permit, as specified on the application form.

(b) *Gulf aquaculture dealer permit.* For a dealer to receive fish cultured by an aquaculture facility in the Gulf EEZ, that dealer must first obtain a Gulf aquaculture dealer permit. However, an owner or operator of an aquaculture facility with a Gulf aquaculture permit may purchase juvenile fish for grow-out from a hatchery located in the Gulf EEZ without obtaining a dealer permit. To obtain a dealer permit, the applicant must have a valid state wholesaler's license in the state(s) where the dealer operates, if required by such state(s), and must have a physical facility at a fixed location in such state(s).

(1) *Application for a Gulf aquaculture dealer permit.*

Application forms are available from the RA. The application must be submitted by the owner (in the case of a corporation, an officer; in the case of a partnership, a general partner). Completed application forms and all required supporting documents must be submitted to the RA at least 30 days prior to the date on which the applicant desires to have the permit made effective. An applicant must provide the following:

(i) A copy of each state wholesaler's license held by the dealer.

(ii) Name, address, telephone number, date the business was formed, and other identifying information of the business.

(iii) The address of each physical facility at a fixed location where the business receives fish from an aquaculture facility in the Gulf EEZ.

(iv) Name, address, telephone number, other identifying information, and official capacity in the business of the applicant.

(v) Any other information that may be necessary for the issuance or administration of the permit, as specified on the application form.

(2) [Reserved]

(c) *Permit requirements for other aquaculture-related*

*activities.* For a person to do any of the following, such person must have in his/her possession and make available upon request by NMFS or an authorized officer, a copy of a valid Gulf aquaculture permit with an original (not copied) signature of the permit owner or owner's agent:

(1) Possess or transport fish in or from the Gulf EEZ to be cultured at an aquaculture facility (*e.g.*, brood stock, fingerlings) or possess or transport fish from an aquaculture facility for landing ashore and sale.

(2) Operate, in support of aquaculture related activities, any vessel, vehicle, or aircraft authorized for use in operations related to an aquaculture facility, *i.e.*, those registered for aquaculture operation use.

(3) Harvest and retain on board a vessel live wild broodstock for use in an aquaculture facility regardless of where the broodstock is harvested or possessed.

(d) *Permit-related procedures--*(1) *Fees.* A fee is charged for each application for a permit submitted under this section and for each request for renewal, transfer or replacement of such permit. The amount of each fee is calculated in accordance with the procedures of the NOAA Finance Handbook, available from the RA, for determining the administrative costs of each special

product or service. The fee may not exceed such costs and is specified with each application form. The appropriate fee must accompany each application or request for renewal, transfer or replacement.

(2) *Review and notifications regarding a Gulf aquaculture permit.* (i) The RA will review each application and make a preliminary determination whether the application is complete. An application is complete when all requested forms, information, and documentation have been received. If the RA determines that an application is complete, notification of receipt of the application will be published in the **Federal Register** with a brief description of the proposal and specifying the intent of NMFS to issue a Gulf aquaculture permit. The public will be given up to 45 days to comment, and comments will be requested during public testimony at a Council meeting. The RA will consult with other Federal agencies, as appropriate, and the Council concerning the permit application during the period in which public comments have been requested. The RA will notify the applicant in advance of any Council meeting at which the application will be considered, and offer the applicant the opportunity to appear in support of the application. The RA may consider revisions to the application made by the applicant in

response to public comment before approving or denying it.

(ii) As soon as practicable after the opportunity for public comment ends, the RA will notify the applicant and the Council in writing of the decision to grant or deny the Gulf aquaculture permit. If the RA grants the permit, the RA will publish a notification of the permit approval in the **Federal Register**. If the RA denies the permit, the RA will advise the applicant, in writing, of the reasons for the denial and publish a notification in the **Federal Register** announcing the denial and the basis for it. Grounds for denial of a Gulf aquaculture permit include the following:

(A) The applicant has failed to disclose material information or has made false statements with respect to any material fact, in connection with the Gulf aquaculture permit application;

(B) Based on the best scientific information available, issuance of the permit would pose significant risk to wild fish stocks, marine mammals, threatened or endangered species, essential fish habitat, public health, or safety; or,

(C) Activities proposed to be conducted under the Gulf aquaculture permit are inconsistent with aquaculture regulations in this section, the management objectives of the FMP, or the

Magnuson-Stevens Act or other applicable law.

(D) Use of the proposed site is denied based on the criteria set forth in § 622.103(a)(4).

(3) *Initial issuance.* (i) Upon receipt of an incomplete application, the RA will notify the applicant of the deficiency. If the applicant fails to correct the deficiency within 60 days of the date of the RA's letter of notification or request an extension of time by contacting the NMFS Southeast Regional Office before the end of the 60-day timeframe, the application will be considered abandoned.

(ii) Prior to issuance of a Gulf aquaculture permit, a copy of currently valid Federal permits (e.g., ACOE Section 10 permit, and Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) permit) applicable to the proposed aquaculture site, facilities, or operations, must be submitted to NMFS.

(iii) The RA will issue an initial permit to an applicant after the review and notification procedures set forth in paragraph (d)(2)(i) of this section are complete and the decision to grant the permit is made under paragraph (d)(2)(ii) of this section. The initial permit will be issued 30 days after the RA notifies the applicant of the decision to grant the

permit, unless NMFS receives a written request from the applicant before the end of the 30 day period to defer issuance of the permit. If the applicant requests a deferral, NMFS will include this information in the notification of permit approval published in the Federal Register as specified in paragraph (d) (2) (ii) of this section and will publish a Federal Register notice upon permit issuance. Permit issuance will be deferred for two years from the date of the RA notification unless the applicant sends a written request to NMFS to issue the permit at an earlier date. This written request must be received by NMFS at least 30 days prior to the date the applicant desires the permit to be effective.

(4) *Duration.* A Gulf aquaculture permit will initially be issued for a 10-year period and may be renewed in 5-year increments thereafter. An aquaculture dealer permit is an annual permit and must be renewed annually. A permit remains valid for the period specified on it unless it is revoked, suspended, or modified pursuant to subpart D of 15 CFR part 904 or the aquaculture facility is sold and the permit has not been transferred or the dealership is sold. Once the aquaculture permit is no longer valid, all components of the aquaculture facility, including cultured animals remaining in approved

aquaculture systems, must be removed immediately from the Gulf EEZ.

(5) *Transfer.* (i) A Gulf aquaculture permit is transferable to an eligible person, *i.e.*, a U.S. citizen or permanent resident alien if the geographic location of the aquaculture site remains unchanged. An eligible person who acquires an aquaculture facility that is currently permitted and who desires to conduct activities for which a permit is required may request that the RA transfer the permit to him/her. At least 30 days prior to the desired effective date of the transfer, such a person must complete and submit to the RA or via the Web site a permit transfer request form that is available from the RA. The permit transfer request form must be accompanied by the original Gulf aquaculture permit, a copy of a signed bill of sale or equivalent acquisition papers, and a written agreement between the transferor and transferee specifying who is assuming the responsibilities and liabilities associated with the Gulf aquaculture permit and the aquaculture facility, including all the terms and conditions associated with the original issuance of the Gulf aquaculture permit. All applicable permit requirements and conditions must be satisfied prior to a permit transfer, including any necessary updates, *e.g.*, updates

regarding required certifications, legal responsibility for assurance bond, other required permits, etc. The seller must sign the back of the Gulf aquaculture permit, and have the signed transfer document notarized. Final transfer of a Gulf aquaculture permit will occur only after the RA provides official notice to both parties that the transferee is eligible to receive the permit and that the transfer is otherwise valid.

(ii) An aquaculture dealer permit is not transferable.

(6) *Renewal*. An aquaculture facility owner or aquaculture dealer who has been issued a permit under this subpart must renew such permit consistent with the applicable duration of the permit specified in paragraph (d)(4) of this section. The RA will mail an aquaculture facility owner or aquaculture dealer whose permit is expiring an application for renewal at least 6 months prior to the expiration date of a Gulf aquaculture facility permit and approximately 2 months prior to the expiration date of an aquaculture dealer permit. An aquaculture facility owner or aquaculture dealer who does not receive a renewal application from the RA within the time frames indicated in this paragraph must contact the RA and request a renewal application. The applicant must submit a completed renewal application form and all required supporting documents to the RA

at least 120 days prior to the date on which the applicant desires to have a Gulf aquaculture permit made effective and at least 30 days prior to the date on which the applicant desires to have an aquaculture dealer permit made effective. If the RA receives an incomplete application, the RA will notify the applicant of the deficiency. If the applicant fails to correct the deficiency within 60 days of the date of the RA's letter of notification or request an extension of time by contacting the NMFS Southeast Regional Office before the end of the 60 day timeframe, the application will be considered abandoned.

(7) *Display.* A Gulf aquaculture permit issued under this section must be prominently displayed and available for inspection at the aquaculture facility. The permit number should also be included on the buoys or other floating devices used to mark the restricted access zone of the operation as specified in § 622.104(c). An aquaculture dealer permit issued under this section, or a copy thereof, must be prominently displayed and available on the dealer's premises. In addition, a copy of the dealer's permit, or the aquaculture facility's permit (if the fish have not yet been purchased by a dealer), must accompany each vehicle that is used to receive fish harvested from an aquaculture facility in the Gulf EEZ. A vehicle operator must

present the permit or a copy for inspection upon the request of an authorized officer.

(8) *Sanctions and denials.* A Gulf aquaculture permit or aquaculture dealer permit issued pursuant to this section may be revoked, suspended, or modified, and such permit applications may be denied, in accordance with the procedures governing enforcement-related permit sanctions and denials found at subpart D of 15 CFR part 904.

(9) *Alteration.* A Gulf aquaculture permit or aquaculture dealer permit that is altered, erased, or mutilated is invalid.

(10) *Replacement.* A replacement Gulf aquaculture permit or aquaculture dealer permit may be issued. An application for a replacement permit is not considered a new application.

(11) *Change in application information.* An aquaculture facility owner or aquaculture dealer who has been issued a permit under this subpart must notify the RA within 30 days after any change in the applicable application information specified in paragraphs (a) or (b) of this section. If any change in the information is not reported within 30 days aquaculture operations may no longer be conducted under the permit.

**§ 622.102 Recordkeeping and reporting.**

(a) Participants in Gulf aquaculture activities addressed in this subpart must keep records and report as specified in this section. Unless otherwise specified, required reporting must be accomplished electronically via the Web site. See § 622.100(a)(3) regarding provisions for paper-based reporting in lieu of electronic reporting during catastrophic conditions as determined by the RA. Recordkeeping (*i.e.*, maintaining records versus submitting reports) may, to the extent feasible, be maintained electronically; however, paper-based recordkeeping also is acceptable.

(1) *Aquaculture facility owners or operators.* An aquaculture facility owner or operator must comply with the following requirements:

(i) *Reporting requirements--(A) Transport of fingerlings/juvenile fish to an aquaculture facility.* Report the time, date, species and number of cultured fingerlings or other juvenile animals that will be transported from a hatchery to an aquaculture facility at least 72 hours prior to transport. This information may be submitted electronically via the Web site or via phone. In addition, permittees are to maintain and make available to NMFS or an authorized officer upon request a written or electronic daily record of the number of cultured

animals introduced into and the total pounds and average weight of fish removed from each approved aquaculture system, including mortalities, for the most recent 3 years.

(B) *Major escapement*. Report any major escapement or suspected major escapement within 24 hours of the event. Major escapement is defined as the escape, within a 24-hour period, of 10 percent of the fish from a single approved aquaculture system (e.g., one cage or one net pen) or 5 percent or more of the fish from all approved aquaculture systems combined, or the escape, within any 30-day period, of 10 percent or more of the fish from all approved aquaculture systems combined. The report must include the items in paragraphs (a) (1) (i) (B) (1) through (6) of this section and may be submitted electronically via the Web site. If no major escapement occurs during a given year, an annual report must be submitted via the Web site on or before January 31 each year indicating no major escapement occurred.

- (1) Gulf aquaculture permit number;
- (2) Name and phone number of a contact person;
- (3) Duration and specific location of escapement, including the number of cages or net pens involved;
- (4) Cause(s) of escapement;
- (5) Number, size, and percent of fish, by species, that

escaped; and

(6) Actions being taken to address the escapement.

(C) *Pathogens*. Report, within 24 hours of diagnosis, all findings or suspected findings of any OIE-reportable pathogen episodes or pathogens that are identified as reportable pathogens in the NAAHP, as implemented by the USDA and U.S. Departments of Commerce and Interior, that are known to infect the cultured species. The report must include the items in paragraphs (a) (1) (i) (C) (1) through (6) of this section and may be submitted electronically via the Web site. If no finding or suspected finding of an OIE-reportable pathogen episode occurs during a given year, an annual report must be submitted via the Web site on or before January 31 each year indicating no finding or suspected finding of an OIE-reportable pathogen episode occurred. See § 622.108(a) (1) regarding actions NMFS may take to address a pathogen episode.

(1) OIE-reportable pathogen;

(2) Percent of cultured animals infected;

(3) Findings of the aquatic animal health expert;

(4) Plans for submission of specimens for confirmatory testing (as required by the USDA);

(5) Testing results (when available); and

(6) Actions being taken to address the reportable pathogen episode.

(D) *Harvest notification.* Report the time, date, and weight of fish to be harvested from an aquaculture facility at least 72 hours prior to harvest. This information may be submitted electronically via the Web site or via phone.

(E) *Landing information.* Report the intended time, date, and port of landing for any vessel landing fish harvested from an aquaculture facility at least 72 hours prior to landing. This information may be submitted electronically via the Web site or via phone. The person landing the cultured animals must validate the dealer transaction report required in paragraph (a)(2)(i) of this section by entering the unique PIN number of the Gulf aquaculture permit holder from whom the fish were received when the transaction report is submitted.

(F) *Change of hatchery.* Report any change in hatcheries used for obtaining fingerlings or other juvenile animals and provide updated names and addresses or specific locations (if no address is available) for the applicable hatcheries no later than 30 days after any such change occurs. This information may be submitted electronically via the Web site.

(G) *Entanglements or interactions with marine mammals,*

*endangered species, or migratory birds.* Report any entanglement or interaction with marine mammals, endangered species, or migratory birds within 24 hours of the event. The report must include the items included in paragraphs (a)(1)(i)(G)(1) through (5) of this section and may be submitted electronically via the Web site. If no entanglement or interaction with marine mammals, endangered species, or migratory birds occurs during a given year, an annual report must be submitted via the Web site on or before January 31 each year indicating no entanglement or interaction occurred.

(1) Date, time, and location of entanglement or interaction.

(2) Species entangled or involved in interactions and number of individuals affected;

(3) Number of mortalities and acute injuries observed;

(4) Cause of entanglement or interaction; and

(5) Actions being taken to prevent future entanglements or interactions.

(H) *Feed invoices.* The permittee must keep the original purchase invoices for feed or copies of purchase invoices for feed, make them available to NMFS or an authorized officer upon request, and be maintained for a period of 3 years.

(I) Any other reporting requirements specified by the RA for evaluating and assessing the environmental impacts of an aquaculture operation.

(ii) *Other reporting requirements.* In addition to the reporting requirements in paragraph (a) (1) (i) of this section, an aquaculture facility owner or operator must comply with the following reporting requirements:

(A) Provide NMFS with current copies of all valid state and Federal permits (e.g., ACOE Section 10 permit, EPA NPDES permit) required for conducting offshore aquaculture and report any changes applicable to those permits.

(B) Provide NMFS with current copies of all valid state and Federal aquaculture permits for each hatchery from which fingerlings or other juvenile animals are obtained and report any changes applicable to those permits within 30 days.

(iii) *Recordkeeping requirements.* An aquaculture facility owner or operator must comply with the following recordkeeping requirements:

(A) Maintain for the most recent 3 years and make available to NMFS or an authorized officer, upon request, monitoring reports related to aquaculture activities required by all other state and Federal permits (e.g., EPA NPDES permit) required for

conducting offshore aquaculture.

(B) Maintain records of all sales of fish for the most recent 3 years and make that information available to NMFS or an authorized officer upon request. Sale records must include the species and quantity of fish sold in pounds round weight; estimated average weight of fish sold to the nearest tenth of a pound by species; date sold; and the name of the entity to whom fish were sold.

(2) *Aquaculture dealer recordkeeping and reporting requirements.* A dealer who purchases fish from an aquaculture facility in the Gulf EEZ must:

(i) Complete a landing transaction report for each landing and sale of cultured animals via the Web site at the time of the transaction in accordance with reporting form and instructions provided on the Web site. This report includes date, time, and location of transaction; information necessary to identify the Gulf aquaculture permit holder, vessel, and dealer involved in the transaction; quantity, in pounds round weight, and estimated average weight of each species landed to the nearest tenth of a pound; and average price paid for cultured animals landed and sold by market category. A dealer must maintain such record for at least 3 years after the receipt date and must make such

record available for inspection upon request to NMFS or an authorized officer.

(ii) After the dealer submits the report and the information has been verified, the Web site will send a transaction approval code to the dealer and the aquaculture permit holder.

(b) [Reserved]

**§ 622.103 Aquaculture facilities.**

(a) *Siting requirements and conditions.* (1) No aquaculture facility may be sited in the Gulf EEZ within a marine protected area, marine reserve, Habitat Area of Particular Concern, Special Management Zone, permitted artificial reef area specified in this part or a coral area as defined in § 622.2.

(2) No aquaculture facility may be sited within 1.6 nautical miles (3 km) of another aquaculture facility and all structures associated with the facility must remain within the sited boundaries.

(3) To allow fallowing and rotation of approved aquaculture systems within a site permitted by the ACOE and approved by NMFS, the permitted site for the aquaculture facility must be at least twice as large as the combined area of the aquaculture systems.

(4) The RA will evaluate siting criteria for proposed offshore aquaculture operations on a case-by-case basis. Criteria considered by the RA during case-by-case review include data, analyses, and results of the required baseline environmental survey as specified in § 622.101(a)(2)(v); depth of the site; the frequency of harmful algal blooms or hypoxia at the proposed site; marine mammal migratory pathways; the location of the site relative to commercial and recreational fishing grounds and important natural fishery habitats (e.g., seagrasses). The RA may deny use of a proposed aquaculture site based on a determination by the RA that such a site poses significant risks to wild fish stocks, essential fish habitat, endangered or threatened species, marine mammals, will result in user conflicts with commercial or recreational fishermen or other marine resource users, will result in user conflicts with the OCS energy program, the depth of the site is not sufficient for the approved aquaculture system, substrate and currents at the site will inhibit the dispersal of wastes and effluents, the site is prone to low dissolved oxygen or harmful algal blooms, or other grounds inconsistent with FMP objectives or applicable Federal laws. The information used for siting a facility with regard to proximity to commercial and recreational fishing

grounds includes electronic logbooks from the shrimp fishery, logbook reported fishing locations, siting information from previously proposed or permitted aquaculture facilities, and other data that would provide information regarding how the site would interact with other fisheries. The RA's determination will be based on consultations with appropriate NMFS and NOAA offices and programs, public comment, as well as siting and other information submitted by the permit applicant. If a proposed site is denied, the RA will deny the Gulf Aquaculture Permit and provide this determination as required by § 622.101(d)(2)(ii).

(b) [Reserved]

**§ 622.104 Restricted access zones.**

(a) *Establishment of restricted access zones.* NMFS will establish a restricted access zone for each aquaculture facility. The boundaries of the restricted access zone will correspond with the coordinates listed on the approved ACOE Section 10 permit associated with the aquaculture facility.

(b) *Prohibited activities within a restricted access zone.* No recreational fishing or commercial fishing, other than aquaculture, may occur in the restricted access zone. No fishing vessel may operate in or transit through the restricted access zone unless the vessel has on board a copy of the aquaculture

facility's permit with an original signature, *i.e.*, not a copy of the signature, of the permittee.

(c) *Marking requirement.* The permittee must mark the restricted access zone with a floating device such as a buoy at each corner of the zone, as authorized by the USCG. Each floating device must clearly display the aquaculture facility's permit number and the words "RESTRICTED ACCESS" in block characters at least 6 inches (15.2 cm) in height and in a color that contrasts with the color of the floating device.

**§ 622.105 Allowable aquaculture systems and species.**

(a) *Allowable aquaculture systems.* The RA will evaluate each proposed aquaculture system on a case-by-case basis and approve or deny use of the proposed system for offshore marine aquaculture in the Gulf EEZ. Proposed aquaculture systems may consist of cages, net pens, enclosures or other structures and gear which are used to culture marine species. The RA will evaluate the structural integrity of a proposed aquaculture system based, in part, on the required documentation (*e.g.*, engineering analyses, computer and physical oceanographic model results) submitted by the applicant to assess the ability of the aquaculture system(s) (including moorings) to withstand physical stresses associated with major storm events, *e.g.* hurricanes,

storm surge. The RA also will evaluate the proposed aquaculture system and its operations based on the potential to pose significant risks to essential fish habitat, endangered or threatened species, marine mammals, wild fish stocks, public health, or safety. The RA may deny use of a proposed aquaculture system or specify conditions for using an aquaculture system based on a determination of such significant risks. The RA's evaluation will be based on information provided by the applicant as well as consultations with appropriate NMFS and NOAA offices and programs. If the RA denies use of a proposed aquaculture system or specifies conditions for its use, the RA will deny the Gulf Aquaculture Permit and provide this determination as required by § 622.101(d)(2)(ii).

(b) *Allowable aquaculture species.* Only the following federally managed species that are native to the Gulf and are not genetically engineered or transgenic, may be cultured in an aquaculture facility in the Gulf EEZ:

(1) Species of coastal migratory pelagic fish, as defined in § 622.2.

(2) Species of Gulf reef fish, as listed in appendix A to this part.

(3) Red drum, *Sciaenops ocellatus*.

(4) Spiny lobster, *Panulirus argus*.

**§ 622.106 Aquaculture operations.**

(a) *Operational requirements and restrictions.* An owner or operator of an aquaculture facility for which a Gulf aquaculture permit has been issued must comply with the following operational requirements and restrictions.

(1) *Minimum start-up requirement.* At least 25 percent of aquaculture systems approved for use at a specific aquaculture facility at the time of permit issuance must be placed in the water at the permitted aquaculture site within 2 years of issuance of the Gulf aquaculture permit, and allowable species for aquaculture must be placed in the aquaculture system(s) within 3 years of issuance of the permit. Failure to comply with these requirements will be grounds for revocation of the permit. A permittee may request a 1-year extension to the above time schedules in the event of a catastrophe (e.g., hurricane). Requests must be made in writing and submitted to the RA. The RA will approve or deny the request after determining if catastrophic conditions directly caused or significantly contributed to the permittee's failure to meet the required time schedules. The RA will provide the determination and the basis for it, in writing, to the permittee.

(2) *Marking requirement.* The permittee must maintain a minimum of one properly functioning electronic locating device (e.g., GPS device, pinger with radio signal) on each approved aquaculture system placed in the water at the aquaculture facility.

(3) *Restriction on allowable hatcheries.* A permittee may only obtain juvenile animals for grow-out at an aquaculture facility from a hatchery located in the U.S.

(4) *Hatchery certifications.* (i) The permittee must obtain and submit to NMFS a signed certification from the owner(s) of the hatchery, from which fingerlings or other juvenile animals are obtained, indicating the broodstock have been individually marked or tagged (e.g., via a Passive Integrated Transponder (PIT), coded wire, dart, or internal anchor tag) to allow for identification of those individuals used in spawning.

(ii) The permittee also must obtain and submit to NMFS signed certification from the owner(s) of the hatchery indicating that fin clips or other genetic materials were collected and submitted for each individual brood animal in accordance with procedures specified by NMFS.

(iii) The certifications required in paragraphs (a) (4) (i) and (ii) of this section must be provided to NMFS by the

permittee each time broodstock are acquired by the hatchery or used for spawning.

(5) *Health certification.* Prior to stocking fish in an approved aquaculture system at an aquaculture facility in the Gulf EEZ, the permittee must provide NMFS a copy of a health certificate (suggested form is USDA/Animal and Plant Health Inspection Service (APHIS) VS 17-141, OMB 0579-0278) signed by an aquatic animal health expert, as defined in § 622.101(a)(2)(xv), certifying that the fish have been inspected and are visibly healthy and the source population is test negative for OIE pathogens specific to the cultured species and pathogens identified as reportable pathogens in the NAAHP as implemented by the USDA and U.S. Departments of Commerce and Interior.

(6) *Use of drugs and other chemicals or agents.* Use of drugs, pesticides, and biologics must comply with all applicable Food and Drug Administration (FDA), EPA, and USDA requirements (e.g., Federal, Food, Drug and Cosmetic Act, 21 U.S.C. 301 et seq.; Clean Water Act, 40 CFR part 122; 9 CFR parts 101 through 124; 21 CFR parts 500 through 599; and 40 CFR parts 150 through 189).

(7) *Feed practices and monitoring.* The permittee must

conduct feed monitoring and management practices in compliance with EPA regulations at 40 CFR 451.21, if applicable to the facility.

(8) *Monitoring and reporting compliance.* The permittee must monitor and report the environmental survey parameters at the aquaculture facility consistent with NMFS' guidelines that will be available on the Web site and from the RA upon request. The permittee also must comply with all applicable monitoring and reporting requirements specified in their valid ACOE Section 10 permit and valid EPA NPDES permit.

(9) *Inspection for protected species.* The permittee must regularly inspect approved aquaculture systems, including mooring and anchor lines, for entanglements or interactions with marine mammals, protected species, and migratory birds. The frequency of inspections will be specified by NMFS as a condition of the permit. If entanglements or interactions are observed, they must be reported as specified in § 622.102(a)(1)(i)(G).

(10) *Fishing gear stowage requirement.* Any vessel transporting cultured animals to or from an aquaculture facility must stow fishing gear as follows:

(i) A longline may be left on the drum if all gangions and

hooks are disconnected and stowed below deck. Hooks cannot be baited. All buoys must be disconnected from the gear; however, buoys may remain on deck.

(ii) A trawl net may remain on deck, but trawl doors must be disconnected from the trawl gear and must be secured.

(iii) A gillnet must be left on the drum. Any additional gillnets not attached to the drum must be stowed below deck.

(iv) A rod and reel must be removed from the rod holder and stowed securely on or below deck. Terminal gear (*i.e.*, hook, leader, sinker, flasher, or bait) must be disconnected and stowed separately from the rod and reel. Sinkers must be disconnected from the down rigger and stowed separately.

(v) All other fishing gear must be stored below deck or in an area where it is not normally used or readily available for fishing.

(11) *Prohibition of possession of wild fish in restricted access zone.* Except for broodstock, authorized pursuant to paragraph (a)(16) of this section, possession of any wild fish at or within the boundaries of an aquaculture facility's restricted access zone is prohibited.

(12) *Prohibition of possession of wild fish aboard vessels, vehicles, or aircraft associated with aquaculture operations.*

Possession and transport of any wild fish aboard an aquaculture operation's transport or service vessels, vehicles, or aircraft is prohibited while engaged in aquaculture related activities, except when harvesting broodstock as authorized by NMFS.

(13) *Maintaining fish intact prior to landing.* Cultured finfish must be maintained whole with heads and fins intact until landed on shore. Such fish may be eviscerated, gilled, and scaled, but must otherwise be maintained in a whole condition. Spiny lobster must be maintained whole with the tail intact until landed on shore.

(14) *Restriction on offloading.* For the purpose of this paragraph, offload means to remove cultured animals from a vessel following harvest from an offshore aquaculture facility. Cultured animals may only be offloaded between 6 a.m. and 6 p.m., local time.

(15) *Bill of lading requirement.* Any cultured animals harvested from an aquaculture facility and being transported must be accompanied by the applicable bill of lading through landing ashore and the first point of sale. The bill of lading must include species name, quantity in numbers or pounds by species, date and location of landing, Gulf aquaculture permit number of the aquaculture facility from which the fish were

harvested, and name and address of purchaser.

(16) *Request to harvest broodstock.* (i) At least 30 days prior to each time a permittee or their designee intends to harvest broodstock from the Gulf, including from state waters, that would be used to produce juvenile fish for an aquaculture facility in the Gulf EEZ, the permittee must submit a request to the RA via the Web site using a Web-based form. The information submitted on the form must include the number, species, and size of fish to be harvested; methods, gear, and vessels (including USCG documentation or state registration number) to be used for capturing, holding, and transporting broodstock; date and specific location of intended harvest; and the location to which broodstock would be delivered.

(ii) Allowable methods or gear used for broodstock capture in the EEZ include those identified for each respective fishery in § 600.725, except red drum, which may be harvested only with handline or rod and reel.

(iii) The RA may deny or modify a request for broodstock harvest if allowable methods or gear are not proposed for use, the number of fish harvested for broodstock is more than necessary for purposes of spawning and rearing activities, or the harvest will be inconsistent with FMP objectives or other

Federal laws. If a broodstock collection request is denied or modified, the RA will provide the determination and the basis for it, in writing to the permittee. If a broodstock collection request is approved, the permittee must submit a report to the RA including the number and species of broodstock harvested, their size (length and weight), and the geographic location where the broodstock were captured. The report must be submitted on a Web-based form available on the Web site no later than 15 days after the date of harvest.

(iv) Notwithstanding the requirements in § 622.106(a)(16), all proposed harvest of broodstock from state waters also must comply with all state laws applicable to the harvest of such species.

(17) *Authorized access to aquaculture facilities.* A permittee must provide NMFS employees and authorized officers access to an aquaculture facility to conduct inspections or sampling necessary to determine compliance with the applicable regulations relating to aquaculture in the Gulf EEZ. In conducting the inspections, NMFS may enter into cooperative agreements with States, may delegate the inspection authority to any State, or may contract with any non-Federal Government entities. As a condition of the permit, NMFS may also require

the permittee to contract a non-Federal Government third party approved by the RA if the RA agrees to accept the third party inspection results. The non-Federal Government third party may not be the same entity as the permittee.

(b) [Reserved]

**§ 622.107 Limitation on aquaculture production.**

No individual, corporation, or other entity will be authorized to produce more than 12.8 million lb (5.8 million kg), round weight, of cultured species annually from permitted aquaculture facilities in the Gulf EEZ. Production of juvenile fish by a hatchery in the Gulf EEZ will not be counted toward this limitation because those fish would be accounted for subsequently via reported harvest at the aquaculture facility where grow out occurs.

**§ 622.108 Remedial actions.**

(a) *Potential remedial actions by NMFS.* In addition to potential permit sanctions and denials in accordance with subpart D of 15 CFR part 904, NMFS may take the following actions, as warranted, to avoid or mitigate adverse impacts associated with aquaculture in the Gulf EEZ.

(1) *Actions to address pathogen episodes.* NMFS, in cooperation with USDA's APHIS, may order movement restrictions

and/or the removal of all cultured animals from an approved aquaculture system upon confirmation by a USDA's APHIS reference laboratory that an OIE-reportable pathogen, or additional pathogens that are subsequently identified as reportable pathogens in the NAAHP exists and USDA's APHIS and NMFS determine the pathogen poses a significant threat to the health of wild or cultured aquatic organisms.

(2) *Actions to address genetic issues.* NMFS may sample cultured animals to determine genetic lineage and, upon a determination that genetically engineered or transgenic animals were used or possessed at an aquaculture facility, will order the removal of all cultured animals of the species for which such determination was made. In conducting the genetic testing to determine that all broodstock or progeny of such broodstock will be or were originally harvested from U.S. waters of the Gulf, will be or were from the same population or sub-population that occurs where the facility is located, and that juveniles stocked in offshore aquaculture systems are the progeny of wild broodstock, or other genetic testing necessary to carry out the requirements of the FMP, NMFS may enter into cooperative agreements with States, may delegate the testing authority to any State, or may contract with any non-Federal Government

entities. As a condition of the permit, NMFS may also require the permittee to contract a non-Federal Government third party approved by the RA if the RA agrees to accept the third party testing results. The non-Federal Government third party may not be the same entity as the permittee.

(b) [Reserved]

**§ 622.109 Adjustment of management measures.**

In accordance with the framework procedures of the FMP for Regulating Offshore Marine Aquaculture in the Gulf of Mexico, the RA may establish or modify the items in paragraph (a) of this section for offshore marine aquaculture.

(a) For the entire aquaculture fishery: MSY, OY, permit application requirements, operational requirements and restrictions, including monitoring requirements, aquaculture system requirements, siting requirements for aquaculture facilities, and recordkeeping and reporting requirements.

(b) [Reserved]

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