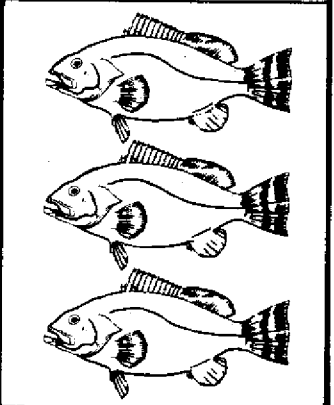


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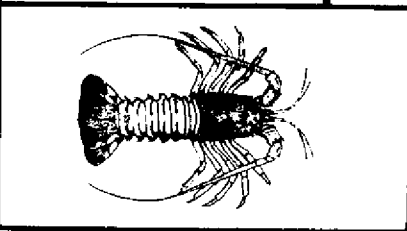
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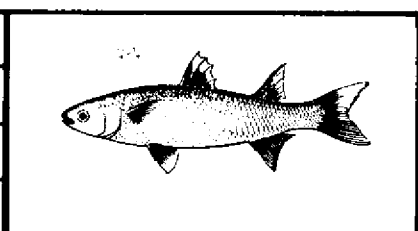


FLORIDA SEAFOOD REGULATIONS AND REGULATORS

W. Steven Otwell



- Adulteration
- Misbranding
- Quality Control
- Sanitation



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**Sea Grant Project No. SGEP-7
Grant No. NA 80AA-D-00038**

**Report Number 72
Florida Sea Grant College
November, 1984
Price \$3.00**

ACKNOWLEDGEMENTS

This report was prepared to assist all concerned with the continued production, processing and distribution of safe, top quality seafoods in Florida and throughout the Gulf and South Atlantic region. The report incorporates the review comments and materials provided by the following individuals. Their views and experienced insights have enhanced the contents and assured a relevant document. The report does not necessarily represent the current position of the respective agencies and departments, but should serve as a useful introductory reference.

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FLORIDA SEAFOOD REGULATIONS AND REGULATORS

INTRODUCTION

This article is intended to explain the pertinent regulations and responsible regulatory authorities which have some monitoring role for the seafood industry in Florida. The primary concerns are proper use of the respective natural resources, product quality and safety, and fair trade practice. These concerns involve a multiplicity of rules and regulators which can have overlapping jurisdiction, conflicting guidelines and inconsistencies. Most seafood firms are often confused, frustrated and prone to criticize the regulatory system. Hopefully, this information can provide a better understanding and appreciation of the difficult regulatory task, and encourage more industry cooperation and compliance. Effective regulations and reasonable enforcement are intended to assure the safety and general welfare of the public, which in turn can promote the economic welfare of the food industry. This is especially important for the seafood industry since it is a researched fact that consumer knowledge and confidence in seafood products is necessary to boost seafood purchases and consumption in the United States. Thus, the responsible seafood firms which try to improve their understanding of the pertinent regulatory scheme will better their opportunity for success.

A list of regulatory agencies which can exercise authority to influence seafood operations in Florida has been arranged in the order of primary concern for a local firm (Table 1a & 1b). A local seafood firm must first become familiar with the most accessible authorities, usually the City or County Health Department, and in some instances an area office of an active agency. These regional authorities represent the first line of enforcement. They usually adopt the regulations of the respective or parent State or Federal agencies. Often additional regulations are included to address unique situations or regulatory policies in a particular city or county. Policies of the State agencies are the most influential, but City and County regulations can be specific and more stringent. Often interagency agreements or letters of understanding between State agencies are established to avoid duplicate service and to promote more uniform regulations. The Federal agencies rarely have any direct influence on a local seafood firm, reserving their role for a more national scope, i.e., interstate commerce, federal fishery management, import regulations, etc. Impacts from these national concerns can have an indirect influence such as correct species nomenclature, available supply,

product recalls, etc. Thus, all levels of regulatory authority can influence the seafood business. A better understanding of these pertinent authorities will assure a more favorable influence.

Table 1a. List of regulatory authorities which can have a direct or indirect influence on a Florida seafood firm. The authorities are arranged in order of most prominent influence.

LOCAL AUTHORITIES

Various City and County Public Health Departments
(in local phone book).

FLORIDA STATE AUTHORITIES

Agriculture and Consumer Services (ACS)

Division of Chemistry

Bureau of Food Laboratory (904) 488-0670

Division of Consumer Services

Consumer Complainants (904) 488-2221

Division of Inspection

Bureau of Food Grades

and Standards (904) 488-3951

Division of Standards

Bureau of Weights and

Measures (904) 488-9140

Game and Freshwater Fish Commission (GFFC)

Division of Fisheries (904) 488-4066

Division of Law Enforcement (904) 488-6251

Health and Rehabilitative Services (HRS)

Information and Referral (904) 488-0675

Food Processing Inspection

Grocery stores, meat markets

restaurants, etc. (904) 487-3144

Natural Resources

Division of Law Enforcement (904) 488-6559

Division of Marine Resources

Bureau of Marine Resources Regulation

and Development (904) 488-6058

Bureau of Marketing Services (904) 488-0163

FEDERAL AUTHORITIES

U.S. Department of Commerce (USDC)

National Bureau of Standards (NBS)

Office of Weights and Measures

National Oceanic and Atmospheric

Administration (NOAA)

National Marine Fisheries Service

(NMFS) (813) 893-3153

U.S. Department of Health and Human Services (HHS)

Food and Drug Administration

(FDA) (305) 855-0900

National Shellfish Sanitation Program

(NSSP) (401) 267-2307

Note: The NSSP is not an organized regulatory authority but a program administered by the U.S. Food and Drug Administration.

Phone Numbers: The listed phone numbers are current as of November, 1984.

Table 1b. Regulatory authority at a glance. An X marks authority responsible for the respective area of concern. An (X) marks partial authority or limited regulatory activity. Acronyms are explained in Table 1a.

	FLORIDA				FEDERAL			
	ACS	HRS	DNR	GFFC	US	HHS ²	USDC	
					FDA	NSSP	NMFS	NBS
HARVEST								
Saltwater Products			X					X
¹ Freshwater Products				X				X
Shellfish Waters			X			X		
PRODUCTS LICENSE								
PERMITS and INSPECTIONS for QUALITY and SANITATION								
Vessel			X					
Packing (dockside)			(X)					
Processing, misc.	X	X	X		X	X		
Processing, oyster		(X)	X		X	X		
Processing, blue crab		(X)	X		X			
Wholesale	X	X	(X)		X			
Retail	X	X	(X)		X			
Mobile Units	(X)	X						
Restaurants		X						
Imports	(X)				X			
Volunteer Service for Fee								X
ADULTERATION								
Miscellaneous	X	(X)						
Water in Oysters	(X)	(X)	(X)			(X)		
MISBRANDING								
Species ID	X				X			
Net Weights	X				X			
Proper Label Information	X		(X)		X	(X)		
² FALSE ADVERTISING	X							
SCALES ACCURACY								
								X

¹The U.S. Department of Interior, U.S. Fish and Wildlife Service may have some influence at the federal level.

²The Federal Trade Commission would be involved at the federal level.

³The NSSP is not a separate regulatory authority but a program administered by the FDA and supplemented by input from the Interstate Shellfish Sanitation Conference (ISSC).

FLORIDA REGULATORY AUTHORITIES

City and County Public Health Departments

The local or regional Public Health Departments are the authorities who most frequently monitor sanitary practices in a seafood operation. In most regions of Florida the local Public Health Departments are the operational extension of HRS, but they are distinguished by the local funding arrangements and particular regional ordinances. Although they follow similar regulations common to HRS, ACS and FDA, they also must assure compliance with specific regulations noted in their respective ordinances. The local regulatory authorities should be listed in the area phone book.

In most regions the local authority begins with required permits to operate. A manager, especially for a new firm should invite their interest, and try to build a

cooperative relationship. Too often a manager perceives local regulation as an unnecessary nuisance which does not fully understand the seafood business. In fact, lack of knowledge both by the manager and local inspector is a common cause for dissension. The manager must realize local food regulations have to be general in structure and wording. This is necessary to cover a diverse responsibility which can include various types and sized operations. For example, most local regulations prohibit food handling and storage by "insanitary methods." In most cases there is no definition given to specify an "insanitary method." This general wording allows flexibility and tolerance to accommodate variable situations and changes. The final interpretation rests with the inspector. Unfortunately, his decision is not always in agreement with the opinion of the manager or other inspectors. Such difference can best be resolved through open communication and cooperation. Although local inspectors have experienced numerous situations pertinent to general food quality and sanitation, they often lack specific experience or training with seafood

products. The value in cooperation should be obvious. An explanation of the seafood business situations and requirements will assist the inspector to make reasonable interpretations. The manager's explanation should be sincere and founded on experience, so it is not perceived as shallow manipulation of the inspection. Cooperation initiated by the seafood firm will give a conscientious impression which is less suspect of violations.

Local regulations can also include specific objective requirements which usually concern distinct, identifiable items, measurable quantities and labeling. The most common objective regulations concern storage and handling temperatures which can be easily monitored with measurements that have little error for interpretational debate. Likewise, use of soft wood cutting boards, packaging deficient in labeling information, illegal species, etc. are clear violations. For example, in Miami, Florida the city health regulations (Chapter 20; Section 20-6) prohibit selling fresh packed oysters with a water content in excess of 10 percent of free liquor. The State (ACS) tolerance is 15 percent. It would be useless to argue this position, because the seafood firm must first comply with specific, local regulations. It is the responsibility of the manager to be familiar with all pertinent local regulations.

If the manager disagrees with existing regulations he should become more involved in the local regulatory process. Local changes require justified alterations in the city or county ordinance. First he should study the existing regulation and attempt to learn the original purpose and evolution of the regulation. He should formulate a reason for change which does not compromise product quality or safety as perceived by the public. Changes which appear to serve the interest of one firm are more questionable, thus the combined interest of similar firms should be encouraged. The requesting interest should plan to be patient realizing State and Federal involvement is probable. In all negotiations the manager should display an opinion that is in the best interest of the consumer.

Florida Department of Agriculture and Consumer Service (ACS)

Relative to food handling, the Florida ACS has the most comprehensive authority of all State agencies with jurisdiction in production, processing, distribution and retail marketing of all foods. Their rules include:

Florida Statutes Chapter 500—Florida Food Act

Department Rules, Chapter 5E-6—Food Rules of the Department of Agriculture and Consumer Services, Division of Inspection.

Florida Administrative Code, Chapter 531—Weights, Measures and Standards

Florida Administrative Code, Chapter 5F-3—Model State Packaging and Labeling Regulations

Chapter 500 is primarily concerned with definitions, areas of responsibility and assuring uniformity with respective Federal regulations. Chapter 5E-6 has similar information, plus more specific regulations of the actual food operations. Chapters 531 and 5F-3 establish requirements to inspect and test weights and

measures commercially used in determining weight and measure, or count of commodities or things offered for sale on basis of weight, measure or count. These requirements include authority for an inspection and the approval of weighing and measuring devices. Usually the inspections occur every 3 to 6 months for small size retail scales, but the inspectors will respond to phoned requests.

The Florida statutes are adaptations, with few amendments, from Federal regulations, the most common of which is the Federal Food, Drug and Cosmetic Act, and Fair Packaging and Labeling Act. Current Federal policies and new addendums are usually adopted in order. Also, the Department reserves the right to promulgate new food regulations to suit the best interest of the consumer. Thus, Florida ACS attempts to remain uniform with Federal laws and enforcement. Their statutes, in turn are legal support for some City and County Health authorities.

By legal authority pertinent to the Florida Seafood industry (Chapter 5E-6, Sec 5E-6.10) the purpose of the ACS is to,

“establish rules and specifications of sanitary and good manufacturing practices relating to the handling, packaging, preserving, storing, and processing of fish and fishery products for sale for consumption as human food. It is essential that the health and welfare of consumers be protected by assuring that fish and fishery products distributed to them are of good quality, wholesome, not adulterated, and are properly marked, labeled, and packaged. Fish or fishery products which do not meet these standards depress markets for fish and fishery products. Those articles that are unwholesome, adulterated, of poor quality, misbranded, or deceptively packaged compete unfairly with articles that are of good quality, wholesome, not adulterated, and properly labeled and packaged, to the detriment of commercial fishermen, processors and consumers of fish and fishery product.”

The ACS does not recognize geographic boundaries within the State, thus, freshwater and saltwater food products are collectively addressed as “fishery products.” Definitions distinguish “primary and secondary producers” and “processors” which includes fishermen, off-loading docks, packing houses, processing on vessels or land, and retail operations. Although their regulations imply authority over product handling and storage on the vessel, by practice and through agreement with other State agencies, their seafood inspections are more common in landside processing, packing operations and retail firms.

The ACS authority is first evident in the requirements for a manufacturer's, processor's, or retailer's permit (Chapter 500, Section 500.12).^{*} To apply for permit, the new manager should phone or write the ACS Division of Inspection or contact the local responsible authority. After submitting an application for permit, the seafood facility will be inspected to assure compliance with

^{*}The ACS permitting authority excludes shellfish and blue crab processing firms subject to DNR permitting authority.

Chapters 500 and 5E-6 (Appendix I). Following approval, a permit number will be issued for conspicuous display. This permit should be renewed annually, during which time the facility can be reinspected by appropriate authorities to assure continuing compliance. Frequency of inspection can vary between 3 to 6 months depending on the regulatory work load in a particular area. Inspections do not necessarily follow a predetermined schedule and can be more frequent, especially in cases of reasonable suspicion. Persistent and unusually serious permit violations can result in suspensions which require permit reinstatement before seafood operations can continue.

If an ACS authorized inspector or agent encounters dangerous, unwholesome, fraudulent or insanitary practices, equipment or food, he has authority to issue and enforce a stop-sale, stop-use, removal or hold-order. It is unlawful for any person to remove, use, or dispose of such detained items without permission. Usually following a circuit court order the items have to be reconditioned or destroyed at the expense of the claimant. If the agent encounters seafoods which are filthy, decomposing, poisonous or generally unsafe, the food in question can be condemned and destroyed. These measures are somewhat drastic and atypical for most seafood operations.

The most common ACS inspection concerns for seafood firms are adulteration, misbranding (including correct species nomenclature), and good manufacturing practices (GMP's). These subjects will be explained in later sections and the GMP's are best explained in reference to the Code of Federal Regulations, Title 21, Part 110. Through these concerns the ACS can influence daily retail operations, personnel cleanliness, store sanitation, packaging, and product quality, distribution, storage and display. In addition, the ACS has authority to prevent merchandising deceit and false advertisement of seafoods.

Florida Department of Health and Rehabilitative Services (HRS)

The role of HRS relative to seafood operations is strictly inspection for sanitary purposes. When applicable, the inspections are often conducted by County Public Health sanitarians who enforce local regulations besides those found in the pertinent HRS regulations:

- Department Rules, Chapter 10D-13 — Food Services (Restaurants)
- Department Rules, Chapter 10D-14 — Food Processing
- Department Rules, Chapter 10D-15 — Food Outlets (Retail Operations)

These regulations are established for sanitary practices relating to food production, processing, packaging, handling, and display. While ACS inspections emphasize product quality, HRS regulators put greatest emphasis on sanitation. Sanitation and product quality in a seafood setting are inseparable, thus regulatory authority can overlap. Where operation jurisdictions and schedules coexist the results could be duplicate inspections. This is not necessarily an

adverse consequence. The seafood manager should learn to distinguish the two authorities, assure the awareness of each inspector for the other inspectors activities, and anticipate their particular emphasis. The uncooperative manager usually invites closer scrutiny by both agencies. The reputable manager should have nothing to hide and welcomes more inspections as constructive criticism.

Similarly, HRS through local authorities is responsible for regulating sanitation on mobile food service units and food outlets. A mobile seafood retail outlet, whether a pick-up truck, trailer, van, etc., must comply with the requirements of HRS Rules, Chapter Section 10D-15.37. If this unit cooks or conducts further preparation of the seafoods, this activity must comply with HRS Rules, Chapter Section 10D-13.32. These chapters simply assure that seafood is handled and sold in a sanitary manner so as to protect the consumer. Also, roadside vendors are subject to the sanitation and consumer protection requirements of ACS chapters 500 and 5E-6. Again, HRS and ACS authority both apply. Since the transient nature of the mobile vendors typically complicates inspections, enforcement of these regulations is usually better suited to the local authorities which supplement the HRS and ACS rules to suit particular city or county ordinances.

Florida Department of Natural Resources (DNR)

The Florida DNR has extremely diverse responsibilities. Department rules and regulations cover a range of subject matter including administrative procedures, oil spill prevention, land reclamation, marine resource research, motor boat laws, boating safety program, recreation and parks, monitoring the occurrence of red tides, endangered species, etc. Their specific regulatory responsibilities which influence the Florida seafood industry are linked with their authority to monitor and enforce rules for the harvest of the marine resource. Marine resources include the edible species harvested from a predominantly saltwater environment. By statute DNR can influence a seafood business by determining which marine species are available for market and how certain species are handled, processed and distributed. The DNR Regulations include:

- Florida Statute, 83-134 — Marine Fisheries Commission
- Florida Statute, 370 — Saltwater Fisheries and Conservation
- Florida Statute, 327 and 328 — Regulation of Boats; Title Certificates
- Department Rules, 16N (Series) — Specific regulations pertinent to harvesting certain species from certain areas; and miscellaneous
- Department Rules, Chapter 16N-27 — The Seafood Quality Code
- Department Rules, Chapter 16B-28 — The Comprehensive Shellfish and Blue Crab Control Code

Chapter 370 is the most comprehensive DNR regulatory authority which controls all aspects of seafood production in Florida. The enforcement authority is the Florida DNR Marine Patrol. All

commercial fishermen must have a registered boat to fish in Florida waters and may need a special license to fish for a particular species. The intent is to have some assessment of resource utilization. Managers should become acquainted with the Marine Patrol District Office nearest their location (Table 2).

The DNR restrictions which can influence a seafood business are size limits, species which can not be harvested or sold, and harvest areas and seasons. Common size limits (Table 3) are scientifically based to assure future production of these species. Decisions to protect species from commercial harvest or sale can be based on recreational concerns, as well as the vulnerable biology of a particular species. Species biology is also the primary concern for establishing any seasonal harvest (Table 3). Occasionally areas of harvest can be restricted for public health reasons. For example, the presence of unnatural pollutants, sporadic occurrence of natural but potentially dangerous phenomena (red tides), and the adverse bacterial problems associated with consumption of raw shellfish (oysters and clams) can result in area restrictions. In fact an Atlas of waters approved for shellfish harvest is continually updated by DNR. Thus, an understanding of DNR regulations is helpful in predicting species availability for Florida seafood markets.

Table 2. Florida Department of Natural Resources, Division of Law Enforcement

FLORIDA MARINE PATROL	
District Offices	
Carrabelle, South Marine St.	(904) 687-3741
Fort Myers, 1818 Jackson Street	(813) 334-8963
Homosassa Springs, Wagon Wheel Plaza, U.S. Hwy. 19	(904) 628-6196
Jacksonville Beach, 2510 2nd Ave., N.	(904) 241-7107
Jupiter, 19100 S.E. Federal Hwy.	(305) 747-2033
Marathon, 2835 Overseas Hwy.	(305) 743-6542
Miami, 1275 N.E. 79th Street	(305) 325-3346
Panama City, St. Andrew Marina	(904) 763-3080
Pensacola, 1101 East Gregory St.	(904) 438-4903
Tampa, 5110 Gandy Blvd.	(813) 272-2516
Titusville, 402 Causeway	(305) 267-4021

*Phone numbers current as of November 1984.

Table 3. Size limits and closed seasons for saltwater fishing as enforced by the Florida Department of Natural Resources.

MINIMUM LEGAL LENGTHS

All fish measured from the tip of the nose to the rear center edge of tail.

Blue Fish	10 inches
Pompano	9.5 inches
Flounder	11 inches
Mackerel	12 inches
Black Mullet	11 inches
(West of Aucilla River)	9 inches
(Aucilla River to Citrus-Hernando County Line)	10 inches
Trout, Spotted Sea (Weakfish)	12 inches
(No size limit in Gulf or Franklin Counties)	
Red Fish	12 inches
Snook	18 inches
(Can't possess more than two.)	
Bonefish	15 inches
(Can't possess more than two.)	
Striped Bass	15 inches
(Can't possess more than six.)	
Grouper	12 inches
(Which includes: Red Grouper, Jewfish, Nassau Grouper, Black Grouper and Gag.)	

CLOSED SEASONS

Crawfish	April 1 through July 25
Oysters	Between June 1 & Sept. 1*
Stone Crab Claws	Between May 15 & Oct. 15
Snook	Jan., Feb., June & July
Shad (Sport)	No closed season
Shad (Commercial)	Check Nearest FMP Office for Regulations

*Commercial Oyster harvest permitted annually in some Florida locations

Note: Additional restrictions for certain crustaceans, fishing gear, and local fisheries should be consulted through the district Marine Patrol Office. Data as of November 1984.

Recently (July 1, 1983) the mechanism for establishing fishing regulations has changed. Now a seven member Marine Fisheries Commission (MFC) appointed by Florida's Governor has the rule making authority in the following areas:

- Fishing gear specifications and any prohibitions
- Harvestable species size limits and bag limits
- Protected species and species not to be sold
- Seasons and area open to harvest
- Quality Control Code (as limited to jurisdiction of the Marine Patrol)

Florida's DNR will continue to be the regulatory authority to enforce the Commission's rules. Future developments and progress of the Commission should be a primary concern for Florida seafood industry.

Accompanying the development of the MFC was the establishment of a saltwater product license, first required as of October 1, 1983. Any person, firm or corporation who sells, offers for sale, barter or exchanges for merchandise any saltwater product including products sold for bait, shall have a valid saltwater products license. The license must be obtained annually and can be issued in the name of an individual or a valid vessel registration or document number. Previously, there was no product license required for a resident fisherman but he sold his catch to a licensed wholesale dealer. Now a license is absolutely necessary to sell products to a licensed wholesale dealer. Also, any person selling saltwater products for human consumption in accordance with the saltwater product license must sell only to a licensed wholesale dealer. Thus, the transfer of products to a seafood retailer must occur through a wholesale license. If a licensed retailer decides to purchase directly from the boat or producer, either the retailer or producer must have a wholesale license in the record of sale.

If a retailer decides to operate as a wholesaler then he must obtain the wholesale dealers license. Application for this license includes a simple affidavit to indicate the applicant has a law-abiding reputation. The license will be issued with a wholesale dealer permit number. This number must accompany all wholesale transactions, either as printed on the invoice or applied with inked stamp (Florida Statute, Chapter 370.07). Wholesale permit stamps with the applicants number can be purchased from DNR, Bureau of Marine Patrol. In addition, all wholesale dealers must maintain records of all purchases and sales. These records are subject to DNR inspection and must contain the sale date, names and addresses of all persons involved in the transaction, and the type and quantity of items purchased or sold. Failure to maintain acceptable records could result in a revoked license. Acceptable records require completion of a designated reporting format established by DNR.

One of the primary reasons for requiring a recorded wholesale transaction is to provide a source of information to better understand the production and distribution of seafoods in Florida. The intent is to establish a marine fisheries information system. Some retailers and wholesalers believe these requirements are a nuisance, infringing on their privacy and jeopardizing their business. Contrarily, the intent is to record the use of Florida's seafood resources in order to

direct management decisions to assure continuing production for future use. Thus, the ultimate objective is in the best interest of the seafood industry and recreational interests.

In addition, wording that accompanied the new license requirements reemphasized the importance of product quality during harvest. The requirements state, "Any person who sells, offers for sale, barter, or exchanges saltwater products shall have a method of catch preservation which meets the standards of the 'Seafood Quality Code' (DNR; Chapter 16N-27)." The DNR Marine Patrol has had authority to enforce a seafood quality code since 1967. In regulatory definitions their quality inspection authority may include fishing vessels (primary producers), off-loading docks, and packing/storing facilities (secondary producers), transportation, and processors (Appendix II). Their defined authority for sanitary concerns is similar to ACS and HRS responsibilities. In practice the marine patrol concentrate their quality inspections to activities nearest the water, i.e., vessel and off-loading/packing houses. In time, as the marine patrol inherited more regulatory responsibilities in other areas, the frequency of quality inspections has decreased. Occasional marine patrol inspections on vessels about docks and even in retail stores are more concerned with legal commercial species, proper sizes, seasons, etc. Reemphasis on the Quality Control Code in association with new license requirements could initiate more concern for product quality problems at harvest.

A specific and more comprehensive quality control program is monitored by DNR to regulate the production and processing of shellfish and blue crabs (Chapter 16B-28). Part I of this regulation strictly deals with the production, handling, processing and distribution of shellfish, i.e., oysters, clams, mussels. These seafoods warrant special attention because they are bottom dwelling shellfish which feed by filtering large volumes of water which may contain harmful bacteria; plus, they are traditionally eaten raw. The potential adverse public health consequences are obvious. Thus, water quality guidelines designating open, harvestable areas must be enforced to minimize risks. These guidelines are established in a uniform fashion by national programs (NSSP & ISSC) which expect the respective States to comply. Recognizing their extensive marine related responsibilities and necessary competence in marine biology, DNR was selected as the State agency to administer and enforce the shellfish guidelines. Their authority includes permitting shellfish processors (i.e., shucking and packing houses) and enforcing particular quality and safety guidelines during production, distribution and marketing.

Similarly, Part II of DNR's Comprehensive Quality Control Code Chapter 16B-28 addresses quality and safety concerns for another particularly sensitive seafood, blue crabs. This seafood warrants special attention because it is distributed alive, as well as cooked, and some traditional processing procedures require special attention. No blue crab processing plant can operate without a permit issued annually by DNR. The permit certifies the plant is under inspection by and meets the sanitary operating requirements of DNR.

Finally, DNR has a Seafood Marketing Division to complement all their enforcement responsibilities. The DNR Bureau of Marketing Services was initiated in 1961 to promote the availability and quality of Florida's seafoods. Since that time their program has annually participated in numerous efforts to expand sales for Florida seafoods. Their marketing work has won State and National recognition. Currently the Florida seafood industry supports their activities through the newly established product and dealers licensing regime. Thus, the program is available to assist any seafood firm in Florida. Their expertise ranges from marketing/promotional specialist to experienced personnel to provide instructions on improving product displays and how to conduct in-store cooking demonstrations/promotions. Their services can address practically every aspect of marketing Florida seafoods.

Table 4. Some rules of the Florida Game and Fresh Water Fish Commission regulating commercial production of freshwater fishery products.

LEGAL AREAS OF HARVEST

Lake Okeechobee

All harvested gamefish must be tagged.

Commercial freshwater fish includes all gamefish (except black bass, striped bass, black crappie, red fin or chain pickerels.)

Lakes less than 500 sq. miles

No gamefish to be taken except pole and line; rod and reel; plug, bob, spinner, spoon, or other artificial bait.

No gamefish to be taken and offered for sale or sold.

NOTE: There is no tag requirement for freshwater catfish harvested in Florida.

FRESHWATER GAMEFISH

Black (largemouth) Bass (*Micropterus Salmoides*)
 Black Crappie (*Pomoxis nigromaculatus*)
 Bluegill (*Lepomis macrochirus*)
 Redbreast Sunfish (*Lepomis auritus*)
 Redear Sunfish (*Lepomis microlophus*)
 Spotted Sunfish (*Lepomis punctatus*)
 Warmouth (*Chaenobryttus gulosus*)
 Other Bream (*Centrarchidae*)
 Chain Pickerel (*Esox niger*)
 Redfin Pickerel (*Esox americanus*)
 White Bass (*Morone chrysops*)
 Striped Bass (*Morone saxatilis*)
 Striped Bass hybrids
 (i.e., Sunshine Bass)

Legal Turtles (Lake Okeechobee)

Red-bellied turtle (*Pseudemys nelsoni*)
 Peninsular cooter (*P. floridana peninsularis*)
 Snapping turtle (*Chelydra serpentina*)
 Soft-shell turtle (*Trionyx ferox*)

All turtles must have a carapace length in excess of eight (8) inches.

Florida Game and Fresh Water Fish Commission (GFFC)

As with DNR's authority relative to saltwater seafood production and use, the GFFC influences the production, handling, distribution and marketing of all legal, commercial freshwater fishery products. Any person who takes freshwater fish or frogs for sale must have a commercial license and use legal methods prescribed by Commission authority:

Florida Statutes, Chapter 372 — Florida Game and Fresh Water Fish Commission

Florida Administrative Code 39 — Wildlife of the State of Florida

Likewise, retailers and wholesalers must be licensed by the Commission to sell freshwater products. It is illegal for any wholesaler or retailer to buy freshwater fish or frogs from an unlicensed person. All dealers of freshwater fish are required to report to the Commission the amount of the different kinds of freshwater fish sold during the past month. Also, methods of catch preservation must meet Commission rules.

The Commission rules are enforced to protect the prevalent freshwater recreational interest and all freshwater resources. Limited seasons, specified gear, specific gear restrictions for designated area, and legal species and sizes are common modes of regulation (Table 4). Legally harvestable gamefish caught for sale under the special management regulations for Lake Okeechobee must be tagged with a special tag issued by the Commission at a cost not to exceed 5 cents per tag. Funds generated by tag sales support the freshwater fish management program on the lake. Tags are issued only to tagging agents on Lake Okeechobee authorized by the Commission. Tags must remain attached to the gamefish until sold to consumers. Retailers can not remove tags, nor purchase or sell untagged gamefish. Fishermen and dealers would be wise to contact the Regional GFFC office to verify all current regulations (Table 5).

Table 5. Toll free phone numbers for the Regional offices of the Florida Game and Fresh Water Fish Commission

Northwest Region Rt. 4, Box 759 Panama City, FL 32405 (904) 785-5352 1-800-342-1676	South Region 2202 Lakeland Hills Blvd. Lakeland, FL 33805 (813) 686-8157 1-800-282-8002
Northeast Region Rt. 7, Box 440 Lake City, FL 32055 (904) 752-0353 1-800-342-8105	Everglades Region 551 N. Military Trail West Palm Beach, FL 33406 (305) 683-0748 1-800-432-2046
Central Region 1239 SW 10th Street Ocala, FL 32674 (904) 629-8162 1-800-342-9620	

Phone numbers current as of November 1984

FEDERAL REGULATORY AUTHORITIES

Federal agencies regulating food production, handling, distribution and marketing are most concerned with interstate and international commerce, but through their activities they can influence practices, items caught and sold, and product safety and quality in local seafood businesses. Federal influence is most obvious through intervention and enforcement by the respective State departments which have modeled their regulatory schemes based on Federal guidelines. The following discussion only reviews the Federal agencies with rules and guidelines most pertinent to the regulation of the seafood industry and the aspects of a seafood operation.

U.S. Department of Health and Human Services (HHS)

The Food and Drug Administration (FDA) is the primary agency within HHS which regulates all aspects of consumer protection relative to food and drugs, whether domestically produced or imported. Their primary statutes as relates to the seafood industry include:

Federal Food, Drug and Cosmetic Act of 1938; as Amended: which in part requires all foods to be wholesome, safe to eat, produced in a sanitary manner, and packed and labeled in truthful and informative manner.

Fair Packaging and Labeling Act of 1966; which requires that the net weight and other information for food products be labeled in an accurate, informative and readable manner.

Public Health Service Act of 1944; which in some parts addresses safety in shellfish production and sanitation for food services.

Their counterparts at the State level in Florida are primarily ACS and some sanitation program aspects with HRS. Their field activities in association with the seafood industry primarily involve periodic inspections of processing firms to assess compliance with good manufacturing practices (GMP's) and checking seafoods for adulteration and misbranding (see sections, adulteration and misbranding). The GMP's (Title 21 Code of Federal Regulations Chapter 1, Part 110¹) are recommended and required FDA guidelines concerning quality and sanitation during food processing, manufacturing, packaging, distribution and storage. They are written in a general sense to cover the basic requirements relative to most foods. In time more specific GMP's have been added and will continue to be added to address specific food industries. Currently there is only one specific set of GMP's for particular seafood processing; i.e., frozen raw breaded shrimp (21 CFR 123).

Recommended sanitary practices for retail firms are developed by the FDA Bureau of Foods, Retail Food Protection Branch. Their most recent edition was the 1982 Model Code for "Retail Food Store Sanitation" (see

references for availability). The intent of this Code, prepared jointly with the Association of Food and Drug Officials, is to assist the various State and Local authorities in maintaining effective retail sanitation programs. The code is recommended for adoption by each State, and is currently under consideration in Florida. Sanitary guidelines in the Code comment on food source, food protection, personnel, cleanliness, food equipment and utensils, water supply, sewage and plumbing, handwashing facilities, pest control, plant construction, and other operations. The recommended inspection scheme to accompany the Code is a point system to rate and tally violations in a summary that reflects the retail store's degree of compliance. The score can then be used to recommend specific areas for correction and more conscientious attention.

In a few instances, the FDA has established specific standards and general provisions for certain seafoods (Table 6). The intent is to establish a food standard which is honest and fair in the interest of consumers. Usually a retailer is not aware or concerned with the guidelines, realizing enforcement is most often at the processing level, but consumer complaints could initiate closer scrutiny.

Table 6. General provisions and specific standardized fish and shellfish requirements stipulated by FDA in Title 21, Code of Federal Regulations, Part 161—Fish and Shellfish, April 1, 1983

Section(s)	Seafood	Specifications
161.30	Canned Oysters (Gulf Coast)	declaration of quantity of contents
161.130	Oysters (<i>Ostrea virginica</i> , <i>O. gigas</i> and <i>O. lurida</i>)	processing requirements
161.131 thru 161.135	Oysters (<i>O. virginica</i>)	grades or meat counts per gallon and per quart
161.136 thru 161.140	Olympia oysters (<i>O. lurida</i>)	grades or meat counts per gallon and per quart
161.145	Canned Oysters (<i>O. virginica</i> , <i>O. gigas</i> , <i>O. lurida</i>)	identify, fill of container, labeling
161.170	Canned Pacific Salmon	identify, forms, ingredients, label, fill of container, etc.
161.173	Canned Shrimp	identify, styles, ingredients, label, fill of container, etc.
161.175	Frozen Raw Breaded Shrimp	nomenclature, identity, processing, label, etc.
161.176	Frozen Raw Lightly Breaded Shrimp	nomenclature, identity, processing, label, etc.
161.190	Canned Tuna	identity, species, forms, processing, fill of containers, etc.

NOTE: *Ostrea* for *O. virginica* and *O. gigas* is currently replaced by *Crassostrea*, to read *Crassostrea virginica* and *C. gigas*.

¹Henceforth to be referenced as 21 CFR 110

Also, the FDA Bureau of Foods, contains the Shellfish Sanitation Branch which is responsible for the National Shellfish Sanitation Program (NSSP). The program is a Federal - State - Industry tri-cooperative to assure the production, processing and marketing of safe, top quality shellfish, meaning oysters, clams and mussels. The program emphasizes two main factors—the microbial conditions in all State shellfish growing and harvesting areas, and certification of the processing operations handling shellstock and shucking shellfish. In Florida the cooperating State agency is DNR which also participates in the newly formed Interstate Shellfish Sanitation Conference (ISSC) which is designed to better address and, if necessary, change regulatory procedures and standards contained in the NSSP guidelines.

Likewise, the Shellfish Sanitation Branch (NSSP) can assist in directing State regulation of shellfish depuration operations used to purge any harmful contaminants from live shellstock. Technical assistance provided under the NSSP also helps responsible State agencies to assure consumer protection from natural toxicity which could result from consumption of shellfish exposed to a form of red tide associated with paralytic shellfish poisoning. Such toxic hazards are more prevalent in and about the shorelines of Alaska, west coasts and New England. Controls are achieved by examining harvest areas and prohibiting harvest from potentially dangerous areas.

The FDA maintains an active regulatory inspection program to address and prohibit adulteration and misbranding of seafoods in interstate shipment. This program involves many segments of the seafood industry as does the volunteer seafood inspection program provided by the National Marine Fisheries Service (NMFS). Recognizing similarities of interests and responsibilities, FDA and NMFS signed a memorandum of agreement to assure cooperation, information exchange and communication of respective program activities. Currently in Florida the NMFS program is the most prevalent in seafood processing firms, and FDA inspection activity is more common for shrimp processing and oyster canning operations.

Finally, the FDA also has authority to inspect imported seafoods to assure they comply with federal law. Their import authority is coordinated with the Customs Service of the U.S. Treasury Department which is interested in determining the percentage of certain ingredients in figuring the rate of duty under U.S. tariffs. Customs Service can not release food items until FDA has had the opportunity to examine them and has issued a release. Similarly, seafood exports must comply with specifications and laws of the foreign country. Initial reference to publications by the Codex Alimentarius Commission can be helpful in negotiations (Table 7).

U.S. Department of Commerce (USDC)

The USDC interacts with the seafood industry in the most diverse manner of all federal agencies. Their involvement establishes accuracy of quantity representations in all commercial transactions, monitors and manages the domestic fisheries, offers a

Table 7. Published guidelines and production standards prepared by the International Codex Alimentarius Commission (Available at cost from : UNIPUB, P.O. Box 433, Murray Hill Station, New York, NY 10016).

Recommended International Codes for:

Fresh Fish
 Frozen Fish
 Quick Frozen Fillets of Flat Fish
 Canned Fish
 Hygienic Practice for Molluscan Shellfish
 Shrimp or Prawns
 Quick Frozen Shrimp or Prawns
 Lobsters

volunteer seafood inspection program, and provides technical and advisory assistance to properly develop and utilize the Nation's fishery resources. Their role in monitoring and management of the domestic fisheries is somewhat analogous to similar responsibilities of Florida DNR, and their development and assistance role is similar to some functions of the Florida Sea Grant College Program and participating research programs in various universities in Florida.

The USDC National Bureau of Standards, Office of Weights and Measures provides assistance in supervising the standardization of weights and measures of all domestic commerce with the intent to remain uniform, assure fair practice, and protect consumer interest. Their State counterpart, most obvious to Florida firms, is the ACS Bureau of Weights and Measures which certifies scales.

The USDC's most dominant influence in the seafood industry is through various programs within the National Oceanic and Atmospheric Administration (NOAA). This agency was established in 1970 to better understand, conserve, manage and properly utilize all natural resources with emphasis on the land, air, and ocean interface with interspace. Thus their role includes conservation, restoration and wise use of the vast fishery resources of the United States. The National Marine Fisheries Service (NMFS) is the NOAA program assigned the fishery related responsibilities. The NMFS is responsible for fisheries management (enforcement); fishery habitat conservation; fishery developments; seafood product quality, safety, and identity (volunteers inspection program); aquaculture and seafood technological research; and marine research. All of these functions can have an indirect, but positive influence on a seafood industry.

Fisheries management to assure annual maximum sustainable yields from the Nation's fisheries is relatively new, beginning with the passage of the Magnuson Fishery Conservation and Management Act of 1976. This Act established fishery conservation zones (FCZ) about the U.S. coasts. Within the FCZ, regional Fishery Management Councils were appointed to establish fishery management plans per particular species or group of species. The consequences can be annual catch limits (pounds), size limits, seasons, and gear restrictions all of which can influence daily seafood supply. The ultimate goal is to assure a

continuing supply. Numerous management plans influencing harvest in federal waters about Florida have already been approved by the Secretary of Commerce (Table 8). Specified NMFS agents are responsible for enforcing the laws and regulations of the plans. Adjustments in existing plans are possible and specific plans for more species are being considered. Concerned seafood firms should request information on these plans and become better acquainted with their regional fishery management offices in order to participate in formulating plans which consider the commercial interest.

Table 8. Fishery Management Plans which involve seafood species produced in Florida (as of 11/1/83).

Implemented	
Coastal Migratory Pelagic Resources (Mackerels)	
Gulf of Mexico Shrimp	
Gulf of Mexico Spiny Lobster	
Gulf of Mexico Stone Crab	
Published for Implementation	
Gulf of Mexico Reef Fish (Snapper, Grouper, etc.)	
South Atlantic Snapper and Grouper	

Table 9. Grade Standards for various seafoods as published in the Code of Federal Regulations for the National Marine Fisheries Service's volunteer seafood inspection program.

Title 50 Code of Federal Regulations		
Part	Sub-Part	Seafood Category
261	A	Whole or Dressed Fish
	B	Frozen Headless Dressed Whiting
262	B	Frozen Halibut Steaks
	C	Frozen Salmon Steaks
263	A	General Std. Fish Fillets
	B	Fresh or Frozen Cod Fillets
	C	Fresh or Frozen Flounder and Sole Fillets
	D	Fresh or Frozen Haddock Fillets
	E	Fresh or Frozen O. Perch Pacific O. Perch Fillets
264	A	Frozen Fish Blocks
	B	Frozen Minced Fish Blocks
	C	Frozen Raw Fish Portions
	D	Frozen Raw Breaded Fish Sticks
	E	Frozen Raw Breaded Fish Portions
	F	Frozen Fried Fish Sticks
	G	Frozen Fried Fish Portions
265	A	Frozen Raw Headless Shrimp
	B	Frozen Raw Breaded Shrimp
266	A	Fresh or Frozen Raw Scallops
	B	Frozen Fried and Breaded Scallops

To help the industry maintain the quality of the fishery products, NMFS provides a volunteer inspection program. Trained NMFS inspectors can check processing operations and product quality, quantity and safety. The inspection is a service paid for by the participating seafood firm based on the predetermined price schedule. There are three optional inspections:

1. *Contract Inspection* is the most comprehensive service evaluating all aspects of seafood preparation, processing and packaging. The inspector may spend 4 hour/week to 8 hours/day in a plant. Seafood processors and packers are primary users of this service.
2. *Lot Inspection* is used most often by brokers or buyers in the distribution chain. The inspection only evaluates the existing product quality and packaging.
3. *Consultation Services* are used to address a specified concern such as plant sanitation, new product quality, overall quality control program, etc.

Quarterly NMFS will publish an approved list of the Sanitarily Inspected Fish Establishments. All of these inspections may reference established United States Standards for Grades of various seafoods (Table 9). These standards have been established by the agency with assistance from the regional and national NMFS inspection offices and laboratories:

National Seafood Quality and Inspection Lab 3209 Frederic St. Pascagoula, MS 39567 (601) 762-4591	Southeastern Inspection Office 9450 Kroger Blvd., Duval Bldg. St. Petersburg, FL 33702 (813) 893-3153
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These offices can be contacted for inspection service or advice and literature on inspection guidelines and product standards.

The user of the inspection service can request two distinct inspection marks (Figure 1). The basic inspection can be noted on all inspected products as 'Packed Under Federal Inspection' (PUFI), and an additional inspection for product grades can be noted on products which bear the U.S. grade shield. These labels are evidence to retailers and consumers that the processed and packaged seafoods have been subject to Federal inspection to assure quality. Thus, these labels can enhance product marketability and consumer confidence. Note, retailers must remember that seafood processing firms not listed in the 'Sanitarily Inspected Fish Establishment' list and products which do not bear the inspection labels are not necessarily inferior, they simply did not participate in the NMFS volunteer inspection program.

Finally, the USDC through the Office of Research and Development has established a Sea Grant College Program which in part provides research and advisory services based primarily in the universities of the respective States to assist developments in the State

Figure 1. Inspection marks available through the National Marine Fisheries Service volunteer seafood inspection program.

**PACKED UNDER
FEDERAL INSPECTION**



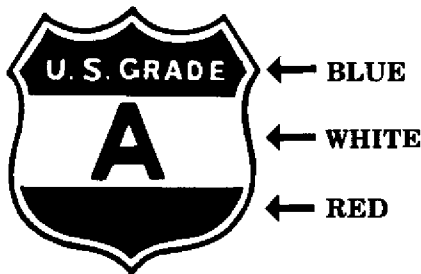
Statement without the use of the circle.

PACKED BY

UNDER FEDERAL INSPECTION
U.S. DEPT. OF COMMERCE

U.S. Grade Shield

Shield using red, white, and blue background or other colors appropriate for label.



fisheries and seafood industry. The program is based on the land-grant college programs which have assisted the Nation's agricultural interests for over a century. Research programs include work in seafood technology, food microbiology and chemistry, some product developments, storage, handling and packaging technology, gear assessments, exploratory fishing, etc. Advisory assistance is provided through a network of

advisory seafood specialists and agents which communicate developments and opportunities through workshops, seminars, publications, and individual assistance. Directories for the Florida and National Sea Grant Programs can be obtained from:

Florida Sea Grant Office Bldg. 803, Room 5
University of Florida Gainesville, FL 32611
(904) 392-1771

Special Regulatory Topics

This section provides more definition for the primary regulatory concerns pertinent to the seafood industry. Wording for these explanations have been taken, in parts, directly from the established regulations, but the original statutes should be referenced in case of any particular concern.

Adulteration

A food is considered adulterated if:

- it contains any poisonous or deleterious substance which may render it injurious to health. For examples, very large swordfish would be considered adulterated by FDA guidelines if they contained mercury content in excess of 1.0 part per million, and certain seafoods are considered adulterated if they contain naturally occurring toxins associated with red tides, ciguatera, etc.
- it contains any added poisonous or added deleterious substance which is unsafe. This requirement considers the safety of unavoidable and necessary additives for components.
- it consists in whole or in part of any filthy, putrid, or decomposed substance, or it is otherwise unfit for food. Interestingly, adulterated foods can not be mixed with similar nonadulterated foods to minimize any defects. 'Dilution' is not an approved method for product reclamation.
- it has been prepared, packed or held under insanitary conditions whereby it may have become contaminated with filth, or rendered injurious to health. All food should be handled and processed under good manufacturing practices (GMP's).
- it is part of a diseased animal or animal which has died otherwise than by slaughter (or customary fish practice). For example, dead fish resulting from natural phenomena, i.e., red tides, change in water temperature, oxygen depletion, etc., can not be processed or sold for human consumption.
- it is in a container composed of a poisonous or deleterious substance.
- it has been exposed to radiation which does not conform to federal regulations.
- if any valuable constituent has been in whole or in part omitted or abstracted, and if any substance has been substituted wholly or in part.
- any damage or inferiority has been concealed in any manner.

- if any substance has been added thereto or mixed or packed therewith so as to increase its bulk or weight, or reduce its quality, or make it appear better or of greater value than it is. This requirement does allow proper use of approved additives, coloring, etc. Excessive use of nonapproved items could constitute adulteration. For example, the fraudulent practice of excessive water soaking of seafoods to enhance weight.

The primary enforcement authority for adulteration is FDA with State enforcement in Florida directed by ACS.

Misbranding

Food misbranding is primarily concerned with labeling information and guidelines for food packaging. The misbranding regulations can be somewhat involved, but in general terms a food is considered misbranded if:

- its labeling is false or misleading in any particular.
- it is offered for sale under the name of another food. For example, selling any fish species other than *Lutjanus campechanus* as Red Snapper constitutes misbranding.
- it is an imitation of another food, unless it bears in typed uniform size and prominence, the words 'imitation' and immediately thereafter, the name of the imitated food. By FDA regulation food is an imitation if it is nutritionally inferior to the food for which it is substituted. Some substitutes are labeled with fanciful names if they are nutritionally equivalent and are thus not considered imitations. For example, 'Sea Bites', made from minced fish, are nutritionally equivalent to fish.
- its container is so made, formed, or filled as to be misleading. For example, a plastic container of crab meat with an excessive concave shaped bottom could be misleading and constitute misbranding.
- it has a package without required labeling information,
- name and place of business of the manufacturer, packer, or distributor.
- accurate statement of quantity of the contents in terms of weight, measure or numerical count; with some reasonable variation.
- standardized food name, if designated in the standards of identity.
- common and usual name of the food if nonstandardized (most seafoods are nonstandardized).
- it has necessary label information which is not prominently placed or conspicuous and terms likely to be read and understood.

The labeling requirements are more involved than this brief list implies, but the list does include the most prominent concerns for seafood firms. In Florida,

misbranding is most often checked by ACS (Chapter 500.11).

The most common misbranding problem in a seafood setting is fish species substitution. This occurs when any fish, usually a less valuable species is substituted in the display or a container for a more valuable species. The result is economic fraud. Product quality need not be involved. This practice can be accidental, but is most often intentional. In Florida, substitutions have occurred for red snappers and other valuable snappers and groupers and to a lesser extent for mackerels, swordfish, etc. The extreme variety of similar fish species with distinct and associated price differentials in Florida encourages misbranding. Preventing retail substitution is difficult and usually results as a consequence of consumer complaints, but electrophoretic laboratory techniques are available through the ACS laboratories in Tallahassee.

Occasionally the FDA must intervene to determine the usual and common name for a species. For example, in 1980, the FDA issued a 'Compliance Policy Guide' 7108.04 to resolve concerns for selling Pacific coast rockfish (family Scorpaenidae) as red snappers. The Guide verbage stated:

"BACKGROUND—The name 'red snapper' has been preempted by many years of consistent consumer usage as meaning only the fish *Lutjanus campechanus*. Because of the high esteem in which this fish is held by consumers, and the relatively limited catch, there have been numerous attempts to substitute other, less expensive fishes for this species. Substitutes of less desirable species have included members of the family *Lutjanidae*, groupers, a number of West Coast rockfishes of the genus *Sebastes*, and other species. The West Coast rockfishes have, until relatively recently, been distributed mostly locally, and thus have been beyond the reach of the Federal Food, Drug, and Cosmetic Act. Some of the states on the West Coast have officially sanctioned 'red snapper' as an alternative name for such members of the *Sebastes* genus, although these fishes are quite different in appearance, flavor, and texture, and are generally regarded by consumers familiar with *Lutjanus campechanus* as inferior.

POLICY—The labeling or sale of any fish other than *Lutjanus campechanus* as 'red snapper' constitutes a misbranding in violation of the Federal Food, Drug, and Cosmetic Act."

To prevent continuing substitutes and encourage more seafood consumption, the NMFS is attempting to initiate 'fish edibility profiles' which could be used as labeling to denote a variety of species with similar edible characteristics. If eventually adopted the industry could refer to catfish, cobia, or white flounder

as white meat fish with light to moderate flavor. Advantages and disadvantages of this system are still in debate which will require more edibility profile work for various species and further economic marketing consideration. The concept is fine, the practice remains unproven.

Another misbranding concern for the seafood buyer is accurate net weight labeling. The requirement is most often violated when the specified product weight for frozen seafood items, i.e., shrimp, lobster tails, fillets, etc. includes the weight of extraneous water added as glazing or wash water prior to freeze. The buyers are vulnerable to economic fraud. The use of water for glazing or washing products is legal, but the net weight on the package label should only account for the actual weight of the food contents in the package. Buyers are wise to check net weights to assure value in their purchase.

False Advertising

The Florida ACS through Chapters 500.19 and 5E-6.13 regulates against merchandising deceit and false advertisements of foods. Retailers which advertise (radio, newspaper, television or similar public means) special food price reductions from regular prices must have the advertised food in stock, and in sufficient quantities to anticipate demand. If these foods are in limited quantity, then the advertisements should indicate such. The food should be sold as advertised and advertised reductions should be real. No act or practice may be engaged to discourage the purchase of an advertised food as part of a "bait" scheme to sell other merchandise. Also, no statement or illustrations may be used to create a false impression for the grade or quality, brand, value or origin of food offered. Even though the true facts about the food may be disclosed, if the first contact was secured by deceit, the law has been violated. Finally, imitation or simulation of trademarks, trade names or their exclusively owned marks of identification, that mislead consumers is prohibited.

Oysters and Clams (also mussels outside of Florida)

As previously noted consumption of raw shellfish warrants special regulatory attention to minimize any potential bacterial problems which could originate in the harvest areas. The Florida DNR following recommendations from the NSSP and ISSC, monitors harvest waters to assure favorable bacterial conditions. The DNR results are continually used to update an *Atlas* of harvestable waters in Florida. A concerned seafood buyer should consult the *Atlas* to become more familiar with the water quality from the area of harvest for his shellfish.

Likewise, the DNR and FDA's shellfish program (NSSP) cooperate to certify all oyster shucking operations. Certification can include four distinct categories which can be issued individually (Table 10). All certifications per state are published monthly in the FDA's *Interstate Certified Shellfish Shippers List* which can be obtained from:

Shellfish Sanitation Branch (HFF-344)
Food and Drug Administration
200 "C" Street, SW
Washington, DC 20204

Table 10. Certification categories for processing and handling oysters, clams or mussels. These categories are identified for the respective firms in the monthly editions of the Federal Interstate Certified Shellfish Shippers List.

RS-Reshipper—Shippers who trans-ship shucked stock in original containers, or shell-stock from certified shellfish shippers to other dealers or to final consumers. (Reshippers are not authorized to shuck or repack shellfish.)

RP-Repacker—Shippers, other than the original shucker, who pack shucked shellfish into containers for delivery to the consumer. A repacker may shuck shellfish or act as a shell-stock shipper if he has the necessary facilities.

SS-Shell-Stock Shipper—Shippers who grow, harvest, buy/or sell shell-stock. They are not authorized to shuck shellfish or to repack shucked shellfish.

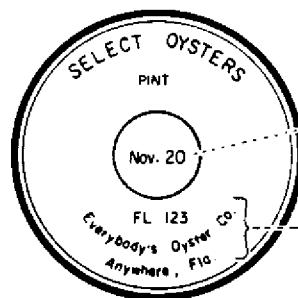
SP-Shucker-Packer—Shippers who shuck and pack shellfish. A shucker-packer may act as a shell-stock dealer.

This list should be consulted in selecting a shellfish supplier. If the buyer intends to repack oysters from original purchased containers then he must contact DNR to obtain a repacker certification, and be prepared to comply with all pertinent DNR sanitation and labeling requirements.

All fresh shucked oysters and clams must be packed in containers labeled as indicated in Figure 2. If these shellfish are repacked from the original containers, the new containers must state the original terminal sale day and appropriate code in order to retain the identity of the original packer. Containers of frozen shellfish must also be labeled with the date of original packaging stated by numerical month, day and year in that order.

Figure 2. Shellfish label information required by the Florida Department of Natural Resources.

LABEL INFORMATION REQUIRED ON EVERY CONTAINER OF FRESH OYSTERS



LAST SALE DATE indicates the 14th day after shucking. Florida law prohibits sale of fresh oysters 14 days after shucking.

Company name, address, and certification number can be used to trace the oysters to their point of origin.

All shellfish container labels must be embossed, imprinted, lithographed or otherwise permanently recorded and readily visible. These rigid labeling requirements, enforced by Florida DNR, are necessary in order to trace any adverse public health consequence back to the origin of harvest and processing. Thus, compliance with rigid shellfish labeling requirements is in the best interest of the seafood buyers.

Blue Crab

As with oysters, the blue crab is considered a potentially hazardous food which warrants special regulatory attention. As specified in Florida DNR regulations, every blue crab processing plant must be inspected and permitted to operate in Florida. These regulations emphasize sanitation and proper operational procedures to prevent progressive growth of infections or toxigenic bacteria. Seafood buyers should only purchase cooked crab meat, either fresh, pasteurized or 'sterilized,' from certified processing plants. The fresh and pasteurized meat must be refrigerated, but the regular canned or sterilized meat can be stored in ambient conditions.

Again, as with oysters, the crab meat containers must be properly labeled to trace the probable source of contamination in the event of an improperly processed product. All crab meat containers must be labeled with a plant certification number which is embossed, imprinted, lithographed or otherwise permanently recorded visible on the body of the container or on the cover if cover becomes an integral part of the container during the sealing process. Containers must also state the type of product (i.e., fresh, pasteurized, claw, body meat, etc.) quantity, and name and address of packer. Pasteurized crab meat must also be labeled to indicate the product is 'Perishable Keep Under Refrigeration.'

The transfer of cooked crab meat from the regular, original packed container to another receptacle is prohibited. The refilling or re-use of certified containers with cooked blue crab is prohibited. Also, the purchase or selling of dead whole blue crabs is prohibited. All of these restrictions are in the best interest of the processor and consumer.

Mobile Units

Mobile seafood retail units can be trucks, trailers, vans, wagons, or any similar vehicle or facility which is not permanently located and can be relocated. The basic

mobility of such units complicates regulation for sanitation and product quality. Although both Florida ACS and HRS regulations can apply to a mobile food outlet, the closest local authorities usually enforce regulations to include particular restrictions in a city or county ordinance. Usually the mobile units must be inspected and permitted by HRS, especially if they intend to engage in food preparation or cooking. Inspections and permits are not always possible due to the sporadic, transitory nature of some smaller one-time, one-location operations. If inspected, the sanitary requirements insist:

- the food must be in a sound condition, clean and free from adulteration and suitable for human consumption.
- all food, especially potentially hazardous items must be protected from contamination.
- if prepackaged food is sold it must be properly labeled.
- adequate refrigeration must be provided for perishable and potentially hazardous foods.
- any waste water must be disposed of so as not to create a nuisance.
- all scales require approval by Division of Standards (ACS).

The retailer intending to operate a mobile unit should attempt to arrange a prior inspection by the local Public Health Department.

Conclusion

The sheer volume of this text should be convincing that regulations for the seafood industry do indeed exist. Occasionally the seafood industry is faulted for operating without mandatory inspection. Further interpretation implies no inspection. For the seafood industry in Florida this is certainly not the case. Although no industry is above quality improvements, the Florida seafood industry is subject to extensive and potentially effective regulation. The ultimate benefits are consumer safety and satisfaction, and the continued economic welfare of the industry.

Appendix I. Portions of a Food Inspection Report used by inspectors from the Florida Department of Agriculture and Consumer Services.

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
DIVISION OF INSPECTION



FOOD INSPECTION REPORT



15 FIRM STATUS 1 <input type="checkbox"/> ACTIVE 2 <input type="checkbox"/> TEMP. CLOSED 3 <input type="checkbox"/> OUT OF BUSINESS 4 <input type="checkbox"/> NEW			SECTION II FOOD						PACKAGES			POUNDS						
			PRODUCTS STOP SALED SHORT WEIGHT						2			7						
			PRODUCTS STOP SALED OTHER VIOLATIONS						12			17						
			PRODUCTS DESTROYED						22			31						
TIME RECORD			TOTAL NUMBER OF PACKAGES WEIGHED						32			34						
			TOTAL NUMBER OF WEIGHT REPORTS						35			37						
33 34 35 36 37 38 39			TOTAL NUMBER OF OFFICIAL FOOD TYPE SAMPLES DRAWN						38			40						
40 41 42 43 44 45 46			TOTAL NUMBER OF SAMPLES OF LABELS - FORMULAS DRAWN						41			43						
47 48 49 50 51 52 53			FIELD TESTS															
			TYPE		POSITIVE		NEGATIVE		TOTAL		TYPE		LEGAL		ILLEGAL		TOTAL	
54 55 56 57 58 59 60			SULFITE		44 45		46 47		48 49		CAUSTIC		50 51		52 53		54 55	
61 62 63 64 65 66 67					LEGAL		ILLEGAL		TOTAL		CHLORINE		56 57		58 59		60 61	
68 69 70 71 72 73 74			HOBART		62 63		64 65		66 67		OYSTER		68 69		70 71		72 73	
75 76 77 78 79 80 81			IODINE		74 75		76 77		78 79		OTHER		80 81		82 83		84 85	

SANITATION

INSTRUCTIONS MARK "S" FOR SATISFACTORY, "X" FOR UNSATISFACTORY AND EXPLAIN UNDER REMARKS. "NA" FOR NOT APPLICABLE

ITEM NO.	(A) PLANT/STOHE & GROUNDS	ITEM NO.	(D) PROCESS & CONTROLS
1.	GROUNDS	1.	RAW MATERIALS
2.	PLANT CONSTRUCTION, DESIGN & SCREENS	2.	CONTAINERS & CARRIERS FOR RAW MATERIALS
3.	EQUIPMENT & UTENSILS	3.	ICE
(B) SANITARY FACILITIES & CONTROLS		4.	TEMPERATURES
		5.	PROCESSING EQUIPMENT
1.	WATER SUPPLY -- HOT & COLD	6.	PROCESSING CONTROLS
2.	SEWAGE DISPOSAL & PLUMBING	7.	PRODUCT TESTING
3.	TOILET FACILITIES	8.	PACKING PROCESSES & MATERIALS
4.	HANDWASHING FACILITIES	9.	CODING OF PRODUCTS
5.	RUBBISH & OFFAL DISPOSAL	10.	STORAGE & TRANSPORTATION OF PRODUCT
(C) SANITARY OPERATIONS		(E) PERSONNEL	
1.	GENERAL MAINTENANCE	1.	DISEASE CONTROL -- HEALTH HAZARDS
2.	ANIMAL & VERMIN CONTROL	2.	CLOTHING -- HATS AND HAIRNETS
3.	SANITATION OF EQUIPMENT & UTENSILS	3.	HYGIENE PRACTICES -- HANDWASHING
4.	STORAGE OF CLEANED EQUIPMENT	4.	SUPERVISION FOR SANITATION

SANITATION RATING 1 GOOD 2 FAIR 3 POOR

PERSON IN CHARGE AT TIME OF INSPECTION	INSPECTOR
REMARKS	

Appendix II. Quality control inspection form which could be used by the DNR Marine Patrol while inspecting a seafood dealer.



State of Florida
DEPARTMENT OF NATURAL RESOURCES

DEALER INSPECTION FORM

Firm Name & Address

Wholesale Dealer No.

Marine Patrol Officer

Signature of Inspected

Date

REMARKS

CHAPTER 16N-27

			EXCELLENT	SATISFACTORY	BORDERLINE	UNSATISFACTORY	
Supplies	27.12	(1)					Seafood shall be clean, wholesome
		(2)					Seafood shall be protected from dust, flies, etc. Screens when necessary.
Health & Disease	27.13						Use of gloves over cuts, disease
Equipment	27.14	(1)					Freezer temp. must be 40° or below
		(b)					Running water for washing seafood
		(c)					Sanitize utensils, recommend spray.
		(d)					Surfaces must be clean, non-porous
Sanitation	27.15	(1)					Water supply for washing, quality
		(2)					Sewage disposed in approved manner
		(3)					Plumbing adequate throughout process
		(4)					Toilets open type seats, no odors, clean
		(5)					Soap and towels in lavatory
		(6)					Containers for waste removal from area
Facilities	27.16	(1)					Check production area space
		(2)					Floors no cracks, sufficient drains
		(3)					Seafood containers washed before use
		(4)					No living quarters opening to plant
		(5)					No animals in plant
Records	27.17						Records open for inspection
Seafood	27.18						Unwholesome seafood must not be offered for sale. Condemnation
Infection	27.19	(1)					Immediate exclusion of diseased employee
		(2)					Consider closure of plant
		(3)					Transfer diseased to other area of plant
		(4)					Adequate medical exam of employee
Shellstock	27.191	(1)					Shellstock shall be washed (thruvester)
		(2)					Data on purchase and sale kept

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REFERENCE FOR MANUSCRIPT

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Florida Sea Grant College is supported by award of the Office of Sea Grant, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, grant number NA80AA-D-00038, under provisions of the National Sea Grant College and Programs Act of 1966. This information is published by the Sea Grant Extension Program which functions as a component of the Florida Cooperative Extension Service, John T. Woeste, dean, in conducting Cooperative Extension work in Agriculture, Home Economics, and Marine Sciences, State of Florida, U.S. Department of Agriculture, U.S. Department of Commerce, and Boards of County Commissioners, cooperating. Printed and distributed in furtherance of the Acts of Congress of May 8 and June 14, 1914. The Florida Sea Grant College is an Equal Employment Opportunity-Affirmative Action employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, sex, or national origin.

This publication was promulgated at a cost of \$2,150.00 or \$2.15 per copy to provide information concerning seafood regulations in the state of Florida to interested persons. Cost does not include postage or handling.