

WATER LOG

A Newsletter for the Mississippi-Alabama Sea Grant Consortium

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PREFACE

While U.S. citizens still prefer the meat of terrestrial rather than aquatic or marine animals, fishery products constitute a sizeable portion of the average American's diet. One reason for this preference may be that, as John Byrne, head of the National Oceanic and Atmospheric Administration (NOAA) pointed out at a recent fisheries symposium, consumer groups are still uncertain about the quality of U.S. fish products. Much of this concern stems from the lack of effective government regulation in the area of seafood quality.

According to NOAA's report on fishery statistics for 1982, over 6 billion tons of commercial fish

were landed in the U.S. in that year. Pascagoula-Moss Point in Mississippi was the third leading port in the nation in the quantity of commercial fishery landings. Almost one-third of the commercial fish harvested came from the Gulf of Mexico. NOAA, Fisheries of the United States, 1982 (April, 1983). In light of the importance of the Alabama-Mississippi region to the marketing of seafood, and current renewed interest by federal and state regulatory agencies, members of the seafood industry, and consumer groups in seafood quality issues, this Water Log focusses on the laws which affect the quality of seafood harvested from Alabama and Mississippi coastal waters.

FEDERAL REGULATION OF SEAFOOD QUALITY

The federal government took its first major step to control seafood quality in 1925 with the establishment of the National Shellfish Sanitation Program (NSSP). The NSSP was developed by the U.S. Public Health Service to supervise the sanitary quality of shellfish shipped in interstate commerce. The impetus behind the NSSP was a request from state and local health authorities. as well as representatives of the shellfish industry, for assistance in dealing with public health problems that had plagued the shellfish industry in the first two decades of this century. Under the NSSP, shellfish is the only type of seafood addressed. Other types of seafood are regulated under the Food, Drug and Cosmetic Act (FDCA) which was passed in 1938. As with the NSSP, public health considerations prompted passage of FDCA. The seafood industry as a whole was included under certain general provisions of FDCA, such as misbranding, mislabelling, and adulteration of food products. This article discusses the federal government's role in seafood quality control through the NSSP and FDCA.

National Shellfish Sanitation Program

The NSSP consists of a set of guidelines to be used by seafood producing states as a basis for forming their own regulations regarding seafood quality. It has two primary goals: (1) continued safe use of shellfish and (2) active encouragement of water quality in order to preserve all possible coastal areas for the safe development of the shellfish industry. Shellfish that are regulated by these guidelines include all edible species of oysters, clams, or mussels.

The NSSP guidelines are divided into two parts: "Sanitation of Shellfish Growing Areas"

and "Sanitation of the Harvesting and Processing of Shellfish." The former covers general administrative procedures, laboratory procedures, growing area surveys and classification, preparation of shellfish for marketing, and control of harvesting from closed growing areas. The latter covers harvesting and handling of shell stock; shucking, packing and repacking plants; and shipping of shellfish.

The most important provisions of the first part of the NSSP concern classification of shellfish growing areas. It recommends that states conduct sanitary surveys of these areas prior to approving them either as a source of market shellfish or as controlled purification or relaying operations. Such a survey should include an evaluation of sources of actual and potential pollution, with a biennial review of the factors influencing the sanitary quality of each approved area.

Once surveyed, it is recommended that growing areas be classified into four categories: approved, conditionally approved, restricted, and prohibited. Approved areas are those areas where the sanitary survey indicates that bacteriological, toxicological, chemical, biological, and physical contaminants do not reach the area in dangerous concentrations. An area should be classified as "conditionally approved" when safe harvesting is dependent upon compliance with an established performance standard for sewage treatment works, and the state is satisfied that such standards will be met while the area is being used for harvesting for direct marketing. In addition, a mechanism must be available to assure that shellfish, harvested from the area subsequent to any failure to meet the performance standard, will not be marketed.

Restricted areas are to be designated when a sanitary survey indicates a limited amount of pollution is present, making it unsafe to directly market the shellfish. However, shellfish from such areas may be marketed following approved purifying or relaying procedures. An area should be classified "prohibited" if a sanitary survey indicates a dangerous amount of pathenogenic microorganisms might reach the area. In addition, all growing areas which have not been subject to a sanitary survey are automatically classified as prohibited. No direct marketing from prohibited areas is to be allowed. When necessary to protect public health, any shellfish growing area can be closed when shellfish toxins have been found. This quarantine should remain in effect until the poison content in sampled shellfish is below the quarantine level.

In addition to the above classifications, NSSP Part One guidelines provide acceptable procedures for relaying and purifying shellfish from restricted areas prior to marketing. All relaying operations from restricted or prohibited areas to approved areas must be done pursuant to written permission from and under the supervision of the state shellfish sanitation control agency. Relayed shellfish cannot be harvested from the approved area until a sufficient period of time has elapsed to allow them to cleanse themselves of pollutants. Relaying areas should be marked as such for easy identification by harvesters. Controlled purification must also be supervised by the state. The proposed purification system must have been demonstrated as consistently effective for the affected species of shellfish.

A further provision requires that boundaries of closed growing areas be clearly marked and patrolled to prevent illegal harvesting. Shellfish harvesters are to be notified either by publication or direct mail when an area is closed.

Part Two of the NSSP is designed to ensure that the shellfish are harvested, processed and shipped in a sanitary manner. It includes recommendations for the construction, operation and maintenance of boats and trucks used in handling shellfish; safe methods of wet and dry storage; construction, operation and maintenance of shucking, packing and repacking plants; standards of cleanliness relating to water supply, sewage and rubbish disposal, and utensils; health and cleanliness standards for persons handling shellfish; and

(Continued on page 6)

ALABAMA SEAFOOD QUALITY REGULATORY SCHEME

Introduction

In 1982, Alabama's commercial seafood industry landed 27,362,000 pounds of seafood valued at \$47,348,000. Like other states, Alabama has developed a comprehensive regulatory scheme for their seafood industry. An important component of this regulation is control over the quality of the seafood product. This article presents an overview of Alabama law as it applies to seafood quality.

Seafood quality and sanitation in Alabama is regulated jointly by the Department of Conservation and Natural Resources and the State Board of Health (Board). The Department of Conservation and Natural Resources, through the Division of Marine Resources (DMR) controls the licensing and taxing procedures, sets the seasons and harvest limits, and enforces the seafood regulations. Ala. Code §9-2-1 et seq. and 9-12-1 et seq. (1975 and Supp. 1983). It is the State Board of Health, however, that directly regulates the quality and sanitation of the processing plants, the seafood product, and the waters from which the seafood is harvested. Ala. Code §22-2-1 et seq. and 22-10-1 et seq. (1975).

Alabama's Board of Health seafood sanitation regulations are divided into two categories. One set of regulations governs the processing of crabmeat; another set covers the shucking and handling of oysters (and shellfish). The sanitation of fish and shellfish is also provided for in a third set of regulations that covers general food products processed in Alabama. Fish and shellfish are provided for particularly in these regulations because they are specially classified as potentially hazardous foods, i.e. capable of supporting the growth of infectious microorganisms.

Oyster Harvesting

The State Board of Health is responsible for setting sanitary standards for oyster harvesting. Regular surveys of coastal waters help the Board classify which areas are safe for harvesting; water quality checks are predominantly made during periods of peak river flow (January-April) since river drainage is the chief source of pollution of Mobile Bay. Approved waters are those that the survey indicates are free of dangerous concentrations of infectious microorganisms. The regulations also require that the approved waters be free of dangerous levels of industrial waste, but the Board presently does not test the waters for levels of articial pollution (such as heavy metals).

Oysters can only be harvested from approved or conditionally approved waters (areas under specific conditions that do not possess dangerous levels of pathogenic microorganisms). All other waters are considered prohibited to oyster harvesting. Because oysters are filter feeders and are typically consumed raw, they are the only type of seafood whose harvest waters are so controlled. Fish and shrimp, on the other hand, may be harvested from oyster-prohibited areas because they are cooked and gutted before being consumed. Oysters also fall in this special category due to the influence of the National Shellfish Sanitation Program: oysters are

the only seafood subject to national sanitary standards. Presently, ninety-five percent of the oysters harvested in Alabama come from a single reef off Cedar Point in Mobile Bay. These waters are temporarily or permanently closed at various times throughout the year.

Since oysters have the ability to cleanse themselves of pollutants, they can be relayed from prohibited areas to approved waters for harvesting purposes. The Division of Marine Resources conducts all relaying procedures either on its own volition or upon request of a harvester with written approval of the Board. Once relayed, the oysters cannot be harvested until the Board makes a determination that they are safe for human consumption. The waiting period is typically 15-21 days, depending on environmental conditions.

Seafood Processing

Both oyster and crabmeat regulations require persons wishing to operate a processing plant to first obtain an operating permit. The permit grants the operator the privilege of processing, packaging, and shipping seafood products.

Permits for crabmeat processing plants are issued annually and are approved (or renewed) upon a showing of compliance with the crabmeat regulations. If the operator seeks renewal of his permit, he must submit a written application to the Board of Health. Regulatory compliance must be established by an inspection 60 days prior to expiration of the permit.

Crabmeat permits can be temporarily suspended for non-compliance with regulations; permits can also be revoked for flagrant or continual regulatory violations, or for interfering with the duties of a health officer. Revocation takes effect upon written notice to the operator of the reasons for such an action; revoked permits can be reinstated upon re-application and a new inspection that verifies compliance. In the event of suspension or revocation, the operator has the right to a hearing within 24 hours from such action. The hearing is a pre-requisite for an operator to have standing to seek additional legal remedies.

Oyster processing operators must obtain permits under basically the same procedures as crabmeat operators. One noticeable difference, however, is that oyster-processing regulations specifically require a health officer to inspect the premises for regulatory compliance prior to the issuance of a permit. Another exception is that a suspension and revocation hearing must be requested within 7 days or the action becomes final. The hearing must take place within 5 days of the request. Suspension of oyster permits can be lifted when the reasons for the suspension no longer exist. If a permit is revoked, the operator may apply for a new permit.

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the end of each day. Equipment and utensils are to be smooth, durable and sanitized prior to each use and after work interruptions. Plants are to be provided with adequate means (such as three-compartment sinks) to clean all utensils used in processing the seafood.

Personnel are also held to strict sanitation requirements. Any employee that is afflicted with a communicable disease is not allowed to work in any area where he may contaminate the seafood or other individuals. Those in charge of operations are to notify health officers immediately if they suspect the existence of such conditions.

A health officer of the county or state is required to inspect crabmeat plants at least once a month. The same rule applies to oyster plants, but the regulations specify that only a state health officer or his authorized agent may perform the inspection. This inspection officer is to have access to plant records and has the authority to take samples of the seafood to determine compliance with sanitation, quality and labeling regulations.

When a health officer inspects crabmeat, he may seize, condemn, denature, or place a written hold on any meat which he has reason to believe is adulterated, unwholesome, misbranded or from an unapproved source. Alteration of container labels on any hold order or tag placed in the meat by the inspector is unlawful. It is also a violation of the regulations to repack, reprocess or dispose of any of the product without the officer's permission or a court order.

Also, when the health officer inspects the premises of an oyster plant and the product, he may order an immediate cessation of operations if he discovers an imminent health hazard. Operations may not resume until his permission is granted; suspension or revocation may result if the order is violated. If a hold order is placed on the oysters for any violation of regulations, a hearing can be requested within 5 days after the permittee has received the order. After the hearing, the order may be vacated. If not, the oysters must be brought into regulatory compliance, denatured, or destroyed.

To pass these inspections, the seafood must meet a wide variety of sanitary standards. First of all, only live crabmeat can be processed. All live crabs must be refrigerated or kept in draining containers filled with cracked or chipped ice. After being cooked, the crabs are to be stored at 45°F or below. After the crabs are backed, they are to be immediately washed and packed in containers, and refrigerated in storage rooms separate from live crabs. If crabmeat is frozen, it cannot be processed later; it must be sold as frozen. Finally, crab waste must be regularly removed unless it is stored in refrigeration. When crabmeat is transported, it must be kept refrigerated, if packaged. The same requirement must be met if the crabs are shipped live for over six hours.

Oyster shellstock received for processing should be reasonably free of sediments and should be stored and refrigerated. Shucked

CZMA CONSISTENCY DETERMINATIONS IN OCS LEASE SALES PART II: CALIFORNIA V. WATT

Introduction

This is the second part of a two-part examination of the question of consistency determinations for Outer Continental Shelf (OCS) lease sales under Section 307(c)(1) of the Coastal Zone Management Act of 1972 (CZMA). 16 U.S.C. §§1451 et seq. (1982). Section 307(c)(1) states: "Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those in a manner which is, to the maximum extent practicable, consistent with approved state management programs." 16 U.S.C. §1456(c)(1). Part One of this analysis (found in 3 Water Log 6 (April-June 1983) was a discussion of federal court decisions which had unanimously concluded that OCS lease sales trigger the consistency determination provisions of §307(c)(1). Since that time, the United States Supreme Court has reversed the lower court opinions and held in a 5-4 decision that sale of OCS leases is not an activity "directly affecting" the coastal zone within the meaning of the CZMA. California v. Watt. 52 U.S.L.W. 4063 (January 11, 1984). This article discusses this Supreme Court decision.

The California v. Watt litigation arose from the Department of Interior's sale of oil and gas leases on the OCS off the coast of California. The state of California notified Interior that it had determined that Lease Sale No. 53 in the Santa Maria Basin was an activity "directly affecting" the California coastal zone and thus requested a consistency determination pursuant to §307(c)(1) of the CZMA. Interior disagreed with California's assertion. Negotiations failed to resolve the conflict; thus litigation was the last resort.

California, along with various conservation and environmental groups which joined in the litigation, took the position that §307(c)(1) requires consistency determinations for OCS lease sales because such activities directly affect the coastal zone by triggering a series of events which will affect the coastal zone. The alternative viewpoint advanced by the Department of Interior and various oil companies, was that lease sales, at the most, only indirectly affect the coastal zone because there are no physical activities associated with lease sales other than the opening of bid envelopes. The latter groups argued also that consistency determinations are appropriate under §307(c)(3) when the oil companies apply for approval of exploration and development plans. (Section 307(c)(3) requires a certificate of consistency by an applicant for any federal license or permit, as well as for OCS exploration and development plans.)

Majority Opinion

After stating that the meaning of the consistency provision is not self-evident, the majority opinion examines its legislative history for clarification. The opinion notes that at one point the language of §307(c)(1) was very clear in both the original Senate and House bills (S.3507, H.R. 14146). Both provisions required consistency determinations when a federal agency conducted or supported activities "in the

coastal zone". The words "directly affecting the coastal zone" that presently appear in §307(c)(1) were substituted by the House and Senate conferees. The problem is that the report of the conferees on the final version of the bill did not indicate why that particular language was chosen, but only summarized the revisions in their final form. See Legislative History of the Coastal Management Act of 1972, Joint Explanatory Statement of the Committee of Conference, Conf. Rep. No. 1544 92nd Cong., 2 Sess., reprinted in 1972 U.S. Code Cong. and Ad. News 4822.

The majority opinion concludes that the sudden appearance of the words "directly affecting" was an attempt to resolve differences in the definition of "coastal zone" in the House and Senate bills. Since neither the original House nor Senate versions of Section 307(c)(1) would have required consistency for OCS lease sales, Congress could not have intended to require it. 52 U.S.L.W. 4066.

The second theory advanced by the majority for not requiring consistency for OCS lease sales is that lease sales are "federally approved activities of third parties" therefore potentially falling under §307(c)(3). The opinion then expressly states that §307(c)(3) does not require consistency review of OCS leases. The primary basis for this argument is the failure of several legislative attempts to add the word "leases" to the words "license or permit" as set out in this section. Instead, subpart (B) was added by Congress in a 1978 amendment explicitly to require consistency review for OCS exploration and development plans. 52 U.S.L.W. 4068. It may be possible, of course, that the words "license or permit", as originally written, were intended to cover leases. Indeed, several original supporters of CZMA argued this during the adoption of the 1976 amendments to CZMA. See, Legislative History, supra at 861.

However, it was apparently conceded by all parties that only section 307(c)(3)(B) now covers OCS oil and gas activities. The majority opinion then argues logically that a lease is not a plan of exploration or development. Since §307(c)(3)(B) mentions only exploration or development plans, lease sales are not covered. Moreover, the Outer Continental Shelf Lands Act (OCSLA) specifically requires consistency for the exploration and development stages, but makes no mention of lease sale consistency. 52 U.S.L.W. 4070-71.

The majority opinion concludes with the observation that it may behoove Interior and oil companies to cooperate with the states as fully as possible during the lease sale process since latter stages are definitely subject to consistency review. 52 U.S.L.W. 4071.

Dissenting Opinion

The dissenting opinion examines the language of the consistency provision and its legislative history and arrives at an opposite conclusion from the majority. In analyzing the plain language of §307(c)(1), the dissent claims that the issue

is whether or not the OCS lease sale has a "direct effect" on the coastal zone, and that there is not distinction in the consistency provision about whether an activity is in or out of the coastal zone, 52 U.S.L.W. 4072. The dissent then argues that an examination of the legislative history of the statute reveals a clear intent to include activities outside the physical boundaries of the coastal zone. It points out that the general purpose of CZMA - protection of coastal zone resources - would be greatly undermined by refusing to require consistency for activities outside the coastal zone. The original House Bill required the Secretary of Commerce to develop a management program for activities on the OCS consistent with the management program of the adjacent state. Even though this provision was deleted in conference, the dissent states that the Senate conferees shared the House's concern that state management programs apply to such activities. Thus, the substitution of "directly affecting" for "in" was the result of a compromise over the extent of the consistency requirement rather than over the definition of the "coastal zone." 52 U.S.L.W. 4073-74.

The argument is then made that if OCS leasing activity directly affects the coastal zone, it is the functional equivalent of activity "in" the coastal zone and is therefore subject to the consistency requirement. *id*.

The next question addressed by the dissent is whether or not a lease sale "directly affects" the coastal zone. The majority opinion essentially ignores that question. The dissent would hold that lease sales are the functional equivalent of activities "in" the coastal zone, and cites the list of "direct" effects enumerated by the District Court. A brief summary of these effects is construction activities, transportation activities, migration of labor into the area, environmental damage from drilling, etc. and possible harmito certain fish and mammal species. The Ninth Circuit also approved this list. The dissent goes on to state that these findings are not challenged by the majority opinion or Interior. 52 U.S.L.W.

The rationale for the dissent's view lies in the conclusion that the choice to include a particular tract or tracts in a sale can only be challenged at the leasing stage. Opposition to certain activities on those tracts can come later, but is limited to some particular activity. The consistency of a decision to include a tract will be measured by possible future physical effects. 52 U.S.L.W. 4077. The required standard of consistency is to the "maximum extent practicable." The degree to which such consistency can be achieved, then, will be measured by the ability to solve problems with available technology. If technology can not solve the problem, then the inclusion of a tract must be based on national security.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

In an effort to establish a coordinated state environmental program, the Alabama legislature the Alabama Environmental Management Act in May, 1982. Ala. Code §22-22A-1 et seq. (Supp. 1983). The Act establishes a Department of Environmental Management (ADEM) which combines the services and responsibilities of these former entities: Alabama Air Pollution Control Commission, Alabama Water Improvement Commission, Water Well Standards Board. Board of Certification of Water and Wastewater Systems Personnel, the Environmental Health Administration Laboratory, and the Coastal Area Board. Those programs previously administered by the State Health Department in the areas of hazardous waste management, public water systems, and disposal of solid wastes were also transferred to the new agency.

The ADEM has primary responsibility for the administration of the following Alabama environmental statutes: The Alabama Air Pollution Control Act, [Ala. Code §§22-28-2 (Supp. 1983)], The Alabama Safe Drinking Water Act, [Ala. Code §§22-23-30 to 54 (Supp. 1983)], the Hazardous Waste Management Act of 1978, [Ala. Code §§22-30-1 to 24 (Supp. 1983)], and the Solid Waste Disposal Act, [Ala. Code §§22-27-2 to 7 (Supp. 1983)]. It also has the duty to enforce those portions of the following federal laws that have been delegated to the state: the Clean Air Act, 42 U.S.C.A. §§7401 et. seq. (West 1983), the Clean Water Act, 33 U.S.C.A. §§1251 et seq. (West 1978 & West Supp. 1983) and the Solid Waste Disposal Act, 42 U.S.C.A. §§6901 et seq. (West 1983).

The environmental policy-making body established by the Act is a seven-member Environmental Management Commission (AEMC). Each member, who is appointed by the governor with the advice and consent of the state senate, serves a six-year, staggered term. In addition to setting the state's environmental policy, the AEMC is empowered to adopt or modify any rules, regulations or environmental standards which may be applicable to the state. This includes the authority to implement and enforce all regulations, standards, permits, licenses, bonds and variances which had been administered by the bodies abolished by the new Act. It also selects the director for ADEM. conducts hearings, and rules on appeals of ADEM administrative actions.

Current members of the Commission are: Thomas R. DeBray, Montgomery; Dr. Claire B. Elliott, Birmingham; J. Ernest Farnell, P.E., Mobile; Stanley L. Graves, Sylacauga; Dr. Cameron McDonald, Birmingham; Russell L. Riley, Montgomery; Dr. Dewey A. White, Jr., Chairman, Birmingham. The Director of ADEM is Joe B. Broadwater.

Anyone desiring further information concerning ADEM may write the Alabama Department of Environmental Management, State Capitol, Montgomery, Alabama 36130 or call (205) 277-3630.

*This article is the fourth in a series of articles that are appearing in the **Water Log** describing federal, regional, state and local entities that exercise jurisdiction over coastal resources in Alabama and Mississippi.

In order to address these problems, the State Board of Health has been given the authority to determine which waters are suitable for oyster harvesting. Based upon periodic surveys, coastal waters are classified into four categories: approved, conditionally approved, restricted, or prohibited. Approved waters are those which the survey indicates are free of dangerous concentrations of pathogenic microorganisms and therefore do not pose a health hazard. Conditionally approved waters are areas approved for harvesting only under specific conditions. Waters which are not safe for harvesting are deemed restricted. Prohibited waters are those where a sanitary survey has not been conducted. It is illegal to harvest shellfish from restricted or prohibited areas.

The Board of Health is also authorized to test coastal waters to ascertain whether any approved areas have become too polluted for a safe oyster harvest. On a finding of possible contamination, the Board must notify MCWC, which may close the beds or require that the oysters be removed therefrom and relaid in waters approved by the Board of Health. All relaid shellfish must remain in the seed areas for at least fifteen days in order to assure that they will sufficiently cleanse themselves prior to harvesting.

Relaying is supervised by a sanitary engineer from the Board of Health, who is required by statute to be on board the boat during the whole process. However, MCWC is responsible for the actual enforcement of the laws and regulations governing relaying. Final approval of the oysters for harvest may only be given after the Board of Health has examined the water and the shellfish and has determined that they meet the bacteriological and chemical standards of the National Shellfish Sanitation Program.

Once shellfish have been harvested and brought to the docks, they must be tagged by BMR with a label attached to their bags, identifying both the fisherman and the source of the lot. Persons in the shellfish industry must keep records of this information, as well as of the address and permit number of each fisherman from whom a lot is received, and the names and addresses of the persons to whom lots are sold or shipped. The tagging program is used not only in identifying harvest areas, but also in facilitating the collection of the state oyster tax.

Seafood Processing

Although shellfish are the only species closely scrutinized by state authorities in the harvestry stage, all seafood removed from coastal waters is subject to the regulations of the Board of Health. The Board's responsibilities fall into three broad areas: crabmeat and cooked shrimp regulations, shellfish sanitation, and general retail food sanitation.

Crabmeat and shrimp are prepared for distribution at picking plants. Such plants may not operate unless they are certified by the Board of Health. The Board may revoke a certificate if it finds that a plant is not in compliance with state sanitation regulations. The certificates are serially numbered, and it is a misdemeanor for any person to use or be in the possession of another's certificate. Mississippi State Board of Health, Rules and Regulations Governing the

SEAFOOD QUALITY REGULATION IN MISSISSIPPI

Introduction

The seafood industry is vital to the economy of the Mississippi Gulf Coast. In 1982, Mississippi's commercial fisherman harvested 383,767,000 pounds of seafood with a total value of \$39,877,000. Mississippi regulates its seafood industry in three basic areas: administration (licensing, taxing, setting seasons, etc.), water quality (insofar as it affects the shellfish harvest), and processing (including the handling, packaging, shipping, and sale of the seafood product). This article will briefly examine these regulations as they apply to seafood quality.

Administration

The legislature has vested two agencies with the authority (sometimes overlapping) to regulate the seafood industry: the Commission on Wildlife Conservation (MCWC) and the State Board of Health. Through the staff support of the Bureau of Marine Resources (BMR), MCWC issues certifications and licenses to, and collects taxes from all those involved in harvesting, packaging and shipping seafood. Miss. Code Ann. §§49-15-15 et seq. (Supp. 12 1983). It also sets the harvestry seasons and the standards of measure for all types of seafood; makes size, catch and taking regulations; and leases waterbottom for oyster farming. Moreover, MCWC

can reserve areas of coastal waters for the tonging of oysters and designate them as off limits for dredging. It has the additional authority to close oyster beds and oversee the relaying of oysters when waters in the area have become too polluted for a safe harvest.

The State Board of Health is jointly responsible with MCWC for overseeing the relaying of oysters. It also supervises the processing, packaging, and shipping of seafood to ensure that state sanitary requirements are met. Miss. Code Ann. §41-3-15 (Supp. 1983).

Water Quality and the Shellfish Industry

The shellfish fishery is the only area of the seafood industry subject to considerable food quality regulation at the harvestry stage. Shellfish include oysters, clams, and mussels. Since oysters are the only species which are consumed whole ("digestive tract and all" in the graphic description of one BMR official) and uncooked, they present health problems which other seafood does not. These problems are addressed both in state statutes concerning the oyster fishery and in Board of Health regulations concerning shellfish. Mississippi State Board of Health, Environmental Regulations: Division 700 - Shellfish (1979).

Picking, Packing, Shipping, and Sale of Crab Meat and Cooked Shrimp (1937).

Similarly, no one may commercially handle, shuck, repackage, or ship shellfish without a Board of Health permit. This permit must be renewed annually and may be revoked for a violation of any regulation, for interference with a health officer in the performance of his duties, or when the Board of Health has a reason to believe a health hazard exists. Before a permit can be suspended, there must be a formal notice of intent to suspend, the violations must be specified in the notice, and a reasonable time for corrections must be given. If the corrections are not made, the suspension becomes effective and remains so until the problems are rectified. In the case of repeated violations, the permit may be revoked after reasonable notice and an opportunity for a hearing. (No similar notice provisions are found in the regulations for picking plants.) Notice of intent to suspend is not required when the shellfish create a health hazard, when they are misbranded or adulterated, or when there is a willful refusal of inspection. Permits are not required for on-location consumption, such as at a half-shell bar or restaurant.

Sanitation regulations governing picking plants and shellfish plants are quite similar and fall into four broad categories: plant construction, equipment, operations, and employee health and cleanliness. Construction requirements cover such matters as plant lighting and ventilation, floor drainage, sanitation of storage facilities, and water supply. Plant equipment must generally be corrosion-resistant and sterile. Plant operations requirements focus on such areas as daily cleansing operations, the methods of packing and chilling the product, and the disposal of waste from the process. Finally, employees must maintain reasonably high standards of personal cleanliness and be free from communicable diseases while at the workplace. Any violation of these regulations constitutes a misdemeanor. Penalties range from fines to revocation of a

In the packing and labelling stage, shrimp and crabmeat containers are required to be clean and free from dangerous contamination. When they are filled with the final product, they must be crimped and sealed, so that tampering will be self-evident. Any can of crabmeat or shrimp that is offered for sale must be embossed or stamped with the serial number of the operator's certificate.

As for shellfish, in addition to the tagging requirements previously discussed, it is also mandated that all containers of fresh or frozen raw shucked shellfish be labelled with the (a) name of the product, (b) name and address of the packer, repacker, or distributor, (c) size of the container, (d) permit number, and (e) date of packaging (if frozen). Containers of shell stock shellfish are to be labelled with the (a) shipper's name, address, and permit number, (b) date of the shipment, (c) harvest areas, and (d) name and address of the consignee. Misbranded, mislabelled, unlabelled, and unapproved, or adulterated shellfish may not be harvested or sold and are subject to impoundment by a health officer.

Shipping regulations require that all seafood which can be classified as "potentially hazardous" (i.e. capable of supporting rapid and progressive growth of infectious or toxigenic microorganisms) must be pre-chilled and maintained at 45°F or below during transport. If seafood does become damaged or spoiled, it must be segregated from other foods, pending disposition. The same requirements apply to the display of seafood. Frozen foods are to be kept frozen at 0°F or below. Potentially hazardous foods which thaw may not be refrozen.

Conclusion

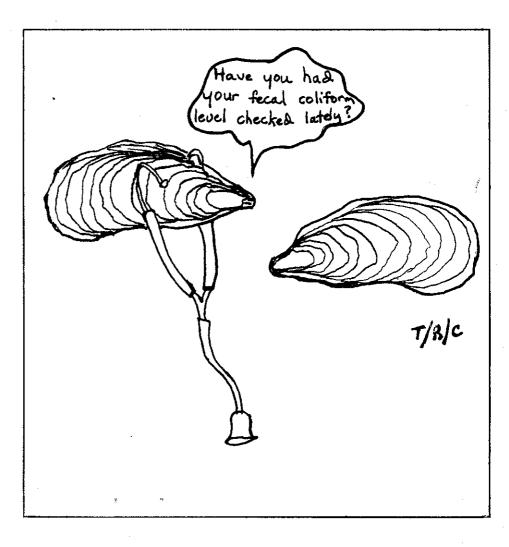
Despite the comprehensive nature of its seafood quality regulatory scheme, Mississippi is still lacking in areas such as development of a meaningful product code and the setting of bacteriological standards for shellfish meats. To help remedy this, Mississippi has joined the newly formed Interstate Shellfish Sanitation Conference (discussed elsewhere in this issue). It is hoped that participation in the Conference will provide uniformity in the development and enforcement of Mississippi's seafood quality standards.

Holt Montgomery Casey Jarman (Continued from page 3)

Conclusion

It seems unfortunate that such word games are played with such important resources. Too much of the legislative history of CZMA reflects concern about the effect of OCS oil and gas development on the coastal regions of this country to deny that such development was, if not uppermost, at least of major importance to the drafters and supporters of CZMA. As the majority opinion notes, "[c]ollaboration among state and Federal agencies is certainly preferable to confrontation in or out of the courts." 52 U.S.L.W. 4071. Further, later consistency requirements can prove substantial roadblocks if a state so desires. It is time now to enact a measure clear in reach and standards, including some guidance concerning the meaning of "maximum extent practicable". It can only be hoped that the parties involved can forego rhetoric and recognize practicalities.

A. L. Sage, III



(Continued from page 1)

standards for processing, storing and transporting of shellfish. Certain recordkeeping procedures are also recommended.

Food, Drug and Cosmetic Act

To date Congress has assumed very little authority over the quality of seafood produced and sold in the United States. What regulation it has authorized is found pursuant to the Food, Drug and Cosmetic Act. 21 U.S.C.A. §§301 et seq. (West 1972 and West Supp. 1983). The purpose of the FDCA, which is administered by the Food and Drug Administration (FDA) is to ensure that food (including seafood) shipped or received in interstate commerce is processed under sanitary conditions and is not adulterated. Seafood quality regulation has been promulgated under two provisions of this Act: adulterated foods and misbranded foods.

The adulterated food section provides that a food is adulterated if it contains any deleterious substance which may render it injurious to health. Qualities that would render food adulterated are: (1) added poisons or deleterious substances; (2) preparation, packaging, or storage under unsanitary conditions that may render the food injurious to health; (3) products of a diseased animal; (4) unsanitary containers; or (5) foods intentionally subject to radiation. In addition, if any substance has been deleted, substituted or added that would increase the product's bulk or weight, or reduce its quality or strength, the food will be considered adulterated.

Misbranded foods are those that contain false or misleading labeling information; are offered for sale under another name; are an imitation of another food and not labeled as such; or the container of which is made or filled so as to be misleading. Products in package form are deemed misbranded unless each package bears a label identifying the name and place of business of the manufacturer, packer or distributor; an accurate statement of the common name and quality of the food; and the name of any additional ingredient. All label information must be conspicuous and readily understandable by the average consumer. If separate standards of identifying quality or fill have been promulgated for a particular food product, such product will be considered misbranded if it fails to conform to such definitions or standards.

The FDA has promulgated three sets of regulations under their above-mentioned authority that pertain to seafood sanitation. The first, issued pursuant to the adulteration provisions of the FDCA, is designed to ensure that food that passes in interstate commerce and made available for human consumption is safe and has been prepared, packed and held under uniform sanitary conditions. 21 C.F.R. §110 (1983). Regulations pertaining to adulterated foods are divided into four categories: personnel; buildings and facilities; equipment; and production and process controls. The second set of regulations deals specifically with the processing of frozen raw breaded shrimp. 21 C.F.R. §123 (1983). It adopts the general

provisions of the above-mentioned adulteration regulations, plus supplements them with criteria specially related to the frozen raw breaded shrimp industry.

If the FDA finds adulterated products, unsanitary plant conditions, or a contaminated product in violation of these regulations, it is authorized to take legal action to: (1) prosecute the violators; (2) enjoin operation of the plant until the unsanitary condition is corrected; and/or (3) seize the adulterated or contaminated food when it is introduced into interstate commerce.

The third set of regulations establishes a voluntary seafood inspection program. 21 C.F.R. §197 (1983). Upon application of any packer of seafood for shipment in interstate commerce, the FDA may, in its discretion, designate an inspector to examine the production, packaging and labeling of seafood products. Passing of such an inspection authorizes the applicant to label his product as "FDA approved."

Conclusion

Although the NSSP has provided a good basic model for administering state shellfish sanitation programs, it has become clear that as a federal regulatory scheme it is unenforceable. Historically, the shellfish producing states and shellfish industry worked cooperatively, with the FDA assuming the role of a monitor of state programs. In 1972, the FDA's power to enforce NSSP guidelines was challenged by the shellfish industry of Virginia. After a series of communications between FDA and Virginia, FDA acquiesced because the NSSP guidelines had never been formally promulgated as agency rules under the requirements of the Administrative Procedure Act. Later, the FDA proposed to incorporate the NSSP guidelines into the Code of Federal Regulations so they would be legally enforceable. This was prevented by Congress in a 1976 amendment to the Coastal Zone Management Act which required the Secretary of Commerce to undertake a review of all aspects of the mulluscan shellfish industry, including an evaluation of the impact of federal water quality laws on the shellfish industry, prior to promulgating any new regulations. In addition, the amendment stated that no new regulations pertaining to the seafood industry could be promulgated until a cost-benefit analysis was completed on the effect of the proposed regulations on the industry. The NSSP guidelines were subsequently withdrawn as proposed regulations and, to date, have not been reintroduced.

Unfortunately, the FDCA as a means of comprehensive seafood sanitation control is also ineffective. Its focus is too broad to deal adequately with the peculiar problems inherent in the seafood industry. In addition, the FDA does not have sufficient resources to assure adherence to sound sanitary seafood quality standards and procedures. Therefore, it is largely up to the states and the shellfish industry itself to monitor the quality of seafood marketed to the consumer.

Casey Jarman

INTERSTATE SHELLFISH SANITATION CONFERENCE

In September of 1982, representatives from 22 shellfish-producing and 3 inland states formed the Interstate Shellfish Sanitation Conference (ISSC). Responding to the lack of uniform enforcement of the National Shellfish Sanitation Program (NSSP), the ISSC was formed to provide a format for state health authorities, the FDA, and the seafood industry to work together to achieve uniform standards for shellfish shipped in interstate commerce.

The foundation of the ISSC is premised on the basis that the transmission of disease through marketed shellfish is preventable and therefore intolerable, a finding that the Public Health Service made in 1925 when it initiated shellfish sanitation objectives through the NSSP. Protection of the consumer is the ultimate goal.

The ISSC is divided into six shellfishproducing regions, but anyone interested in promoting the availability of sanitary shellfish may register and attend the conference. Proposals submitted by any conference participant that require conference action are referred by the Program Chairman to one of three Task Forces: "Growing Areas", "Processing and Distribution", or "Administrative". Each Task Force is made up of three industry representatives, two state shellfish control agency members from producing states, and one member of a control agency from a nonproducing state. The Task Force makes its recommendations to the General Assembly which can accept, reject or amend the proposals as it sees fit. Each shellfish-producing state is allowed one vote in the General Assembly, while non-producing states are permitted one-half of a vote.

Proposals which are passed by the General Assembly are reviewed by the FDA for consistency with federal laws, regulations, and conference policies and procedures. Following FDA approval, the states are to incorporate the proposal into their own regulations and laws.

Members of the ISSC have agreed to adopt the NSSP guidelines as a foundation for its Interstate Shellfish Sanitation Program (ISSP). Currently, the NSSP manuals are being reviewed and updated in order to better suit the needs of the shellfish industry.

The first annual meeting of the ISSC was held in August, 1983, with regulatory department officials from 25 states, personnel from two federal agencies and shellfish industry representatives from several states in attendance. A major result of this meeting was an agreement by all states present to amend the current fecal coliform standard for oyster meat. Participants of this first meeting have indicated a feeling of optimism that the ISSC can be a valuable tool in providing uniform regulation of the shellfish industry.

Tim Weeks Casey Jarman

ALABAMA FLOODPLAIN MANAGEMENT: UPDATE

The conflict between Baldwin County, Alabama, and the Federal Emergency Management Agency (FEMA), as discussed in the last issue of the **Water Log**, appears to be resolved. Seven condominiums under development along "Pleasure Island" were thought to be in noncompliance with federal flood insurance requirements. FEMA had threatened to cut off the county's insurance eligibility if these developments were not halted and compliance assured.

Out of the original seven condominiums under scrutiny in the unincorporated beach areas of Baldwin County, one was dropped from the list. Following an inspection by an independent licensed coastal engineer, the other six were verified as satisfying FEMA regulations. The engineer's analysis of the projects was approved by FEMA offices in Atlanta and Washington, D.C.

The end result of the controversy is that Baldwin County's eligibility for federal flood insurance remains intact, construction of all the condominiums has resumed, and only one change has taken place in the county's flood zone management program—that being the verification of FEMA requirements by an independent licensed coastal engineer. This change is not to infer, as was in the last Water

Log issue, that the county engineer is not a licensed engineer. One must be a registered engineer and land surveyor to be the Baldwin County engineer.

Another issue that appears to be resolved is that of who has the primary enforcement authority over FEMA regulations. In the past, the county cooperated with the Alabama Department of Environmental Management (ADEM) in implementing the state's coastal area management plan. Although these two governmental bodies share responsibility over the management plan, it is now settled that the county is primarily responsible for enforcing federal flood insurance requirements while ADEM has final authority over implementing the management plan. Thus, while ADEM must approve any consistency statements made on behalf of new construction as part of the management plan, Baldwin County must assure compliance with FEMA regulations that may be part of the consistency statement.

Tim Weeks

Resources:
Neil Lauder
Baldwin County Commissioner
Joe Broadwater
Director, ADEM

(Continued from page 2)

oysters are to be washed and cooled to 45° or below. Shells are to be removed regularly to prevent accumulation in the shucking room. Oysters, after shucking, are to be packed in clean containers that are properly identified. (See below). Any repacking must be done in such a way as to not lose the identity of the lot. Frozen oysters are to be kept at 10°F or below.

Labeling and Shipping

All crabmeat distributed, sold, or received for processing must have a container label that displays the name of the product, name and address of the processor, the permit number, quantity and contents by weight, the code date, and words "perishable-keep refrigerated" or "frozen crabmeat."

Each lot of oyster shellstock must be tagged with the following information: harvesting area, date of harvest, name of the harvester and his permit number or the name and permit number of the shipper. This tag must be affixed to the container or the bill of sale.

Shuckers, packers, and repackers are to mark each package of shucked oysters with their permit number, name, address, and the terminal sale date (last day the oysters may be offered for sale). Shuckers, packers and repackers are also required to keep detailed records (to be held for one year) indicating origin and destination of the oysters and the type of processing that was accomplished at the plant.

Conclusion

Alabama, like other seafood-producing states, is attempting to effectively control the sanitary quality of its seafood. One area of need is the development of procedures to test coastal waters for man-made industrial pollutants. In addition, since its standards and procedures are not all uniform with respect to other coastal states, Alabama has joined the Interstate Shellfish Sanitation Conference (discussed elsewhere in this issue) in an attempt to improve the quality of seafood product reaching the consumer.

Tim Weeks

WATER LOG

This newsletter is a quarterly publication reporting on legal issues affecting the Mississippi-Alabama coastal area. The purpose of the newsletter is to increase public awareness of coastal problems and issues.

If you would like to receive future issues of the WATER LOG free of charge, please send your name and address to: Sea Grant Legal Program, University of Mississippi Law Center, University, Mississippi 38677. We welcome suggestions for topics you would like to see covered in the WATER LOG.

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NOTES

The Army Corps of Engineers is preparing a draft supplemental environmental impact statement for a proposed Mobile Harbor dredging project. The draft supplement will address the need to provide for the disposal of dredged material resulting from the maintenance of upper Mobile Harbor. For more information, contact James B. Hildreth, PD-EE, U.S. Army Engineer District, Post Office Box 2288, Mobile, AL 36628.

The first lawsuit against the Coastal Barrier Resources Act (CBRA) has been filed in North Carolina. The developer-plaintiff contends that his property on Topsail Island does not fit the statutory definition of an undeveloped coastal barrier and therefore should not have been designated as such.

Catherine L. Mills, former staff attorney with the Mississippi Law Research Institute, and Associate Editor of the **Water Log**, has been selected as one of fifteen 1984 Sea Grant Fellows by the Department of Commerces Sea Grant College Program. Ms. Mills is the first representative from the Mississippi-Alabama region. She began work on January 23 with the National Advisory Committee on Oceans and Atmosphere (NACOA) in Washington, D.C. NACOA is the advisory body to the President for U.S. oceanic and atmospheric policy.

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