40-7-4-.01 Definitions.

(1) "Fresh crab" means a live, raw, or frozen raw crab which shows no decomposition.

(2) "Crab meat" means the picked meat of the blue crab, *callinectes sapidus*, which has been thermally processed and removed from its shell by hand picking or other mechanical means approved by the department.

(3) "Cooked crab" means the blue crab in whole or in part which has been thermally processed with the shell intact either whole or in part.

(4) "Food contact surface" means the parts of equipment, including auxiliary equipment, which may be in contact with the food being processed, or which may drain into the portion of equipment with which food is in contact.

(5) "Overage" means the crab meat that is in excess of an even number of pounds delivered by the picker to the packing table.

(6) "Sanitize" means the effective bactericidal treatment of clean surfaces of equipment and utensils by a process which has been approved by the department and is effective in destroying vegetative cells of pathogens bacteria and in substantially reducing other micro-organisms. Such treatment shall not adversely affect the product and shall be safe for the consumer.
(7) "Operating season" means the season of the year during which fresh crabs are received into the plant for further processing.

(8) "Nuisance" means any condition that exist which is annoying, unpleasant, or unwanted.

(9) "Pasteurization, Pasteurized, and similar terms" shall mean the process of heating every particle of crab meat in an approved hermetically sealed container to a temperature of at least 185 degrees F(85 degrees C) and holding it continuously at or above this temperature for at least one minute in properly operated equipment approved by the department. The term also includes any other process which has been found equally effective by the department.

(10) "Department" means Georgia Department of Agriculture, Consumer Protection Division, therefore having responsibility for enforcing these regulations.

40-7-4-.02 Requirements for Certification.

(1) No person, firm, or corporation shall process or offer for sale crab meat that has been processed or cooked crab intended for human consumption without first obtaining certification from the Commissioner of the Georgia Department of Agriculture.

(a) Requirements for the issue of such certification are as follows:

1. Application shall be submitted in writing with statement that rules and regulations pertaining to operation of facility have been read and complied with.

2. Certification shall be valid from date issued until expiration date occurring each year on December 31, unless certification is revoked before expiration.

3. Certification shall be revocable at any time for cause or suspended for noncompliance with any requirements set forth in these regulations. Certification issued is not transferable to another facility or person.

4. No certification shall be issued by the Commissioner until a comprehensive on site inspection of facility, equipment, and processes show compliance with applicable rules of this section.

5. Plans and specifications for proposed new construction expansion of operations or changes in operating processes shall be submitted to the department for review and approval prior to beginning construction or new process.

6. Recertification may be applied for by a certified facility within 60 days of expiration of certification. The facility must show compliance with an on-site inspection and review of all processes. The certification number originally issued to the facility shall be the same when the facility is recertified.

(2) Plant owners holding valid certification from the Georgia Department of Agriculture shall not handle in their plant in any way, crab meat or cooked crabs that have been packed or processed in a plant that has not been certified.

(3) Plant owners holding valid certification from Georgia Department of Agriculture shall not handle or repack in any way crab meat or cooked crabs that have been packed or processed in another certified plant without prior notification to the Georgia Department of Agriculture and approval by the department.
(1) The rules and regulations in this section shall apply to the operation of all facilities and persons certified in 40-7-4.02 of this section.

(2) The rules and regulations in this section shall apply to retail, wholesale, and other businesses and persons engaged in preparation, buying, selling, distribution, or transporting of cooked crab and crabmeat product.

(3) The rules and regulations in this section shall not apply to food service establishments permitted by Georgia Department of Human Resources Environmental Health Division.

(4) The rules and regulations in this section shall not apply to those businesses and facilities which further process crab meat for use in other foods such as deviled crab, as long as the crabmeat used is from an approved certified plant, and the business or facility does not engage in the cooking of fresh crab or picking of cooked crab.

(5) The rules and regulations in this section shall not apply to retail seafood establishments or businesses which cook crab, conch, and other crustacea products where no further processing is done and where the product is only offered for sale at the same establishment (the product does not enter into food distribution channels).


40-7-4-.04 Plant Arrangement and Grounds.

(1) Plants in which crabmeat is picked and packed shall, to the extent feasible, be so located that they will not be subjected to flooding by high tides. If plant floors are flooded, processing shall be discontinued until after waters have receded and the facilities are cleaned and sanitized. A minimum plant elevation of at least two feet above mean high water shall be provided in new plant construction. Where retort operations are below the floor level of the plant, the drains and vents on such equipment shall also be located at least two feet above mean high tide.

(2) Plant design shall provide for continuous flow of the raw materials and product, to prevent contamination by exposure to areas involved in earlier processing steps, refuse disposal, clean-up operations, or other objectionable areas.

(3) Separate rooms or areas approved by the department shall be provided for receiving, washing and culling, refrigeration of product and processing of product.

(4) The following processes shall be carried out in separate rooms or facilities and the interior walls separating these rooms shall extend from floor to ceiling and contain only necessary openings (such as conveyors and doorways).

(a) Cooking.

1. The cooking room or area shall be under permanent cove.

2. The cooking room or area should be located between the area for receiving fresh crabs and the cooling room. It shall be properly vented to assure the quick removal of steam.

(b) Cooling and/or Debacking.

1. A separate room shall be provided for the cooling of cooked crabs except where suitable arrangements or adequate space is provided in either the picking room, debacking room, or the cooking room for this purpose, provided that the construction and arrangement shall give adequate protection to the cooked crab from flies, insects, rodents, dust, plant traffic, and the washing down or clean-up operation. This room and refrigerated room for cooked crabs shall open directly into the picking room, debacking room, or screened-in-area or passageway through which crabs are transported after cooling.
2. The cooling room shall not contain any material, product, or equipment not pertaining to the storage of cooked crabs.

3. A water hose and an easily accessible water connection with backflow prevention device shall be provided to aid in cooling of cooked crab.

4. Roll carts, hand trucks, overhead rails, etc. used for conveying retort baskets from cooking room to cooling area shall have contact surfaces of smooth corrosion resistant metal, and shall be maintained with a smooth non-porous, easily, washable finish.

5. Overhead hoists used in the plant shall be equipped with chain bags or other approved device to minimize the potential for contamination of cooked product from overhead.

(c) Refrigerated rooms and coolers.

1. Separate refrigeration rooms shall be provided for: picked crab meat; for unpicked cooked crabs and for; uncooked items such as fresh crabs, bait, fish, and conch; provided that in an emergency cooked crabs may be temporarily stored in the same refrigeration room with packed containerized crab meat.

(d) Picking/packing.

1. If mechanization is planned that will provide for a single flow-through process the picking/packing and packing/shipping activities can be carried out in one room.

2. Where picking and packing rooms are separated by walls or partitions a delivery window shall be provided and equipped with a corrosion resistant shelf of metal or equally smooth non-porous surface, and shall drain toward the picking room.

(e) Pasteurization.

1. A separate room shall be provided except where suitable arrangements or adequate space is provided in either the cooking room or debacking room for the purpose of pasteurization provided that the construction and arrangement shall give adequate protection to product and not interfere with or interrupt the pasteurization process.


40-7-4-.05 Ice.

(1) Ice boxes must drain properly and have a non-porous corrosion resistant lining that does not leak.

(2) The refrigeration rooms or ice box shall be large enough and so constructed that a full day's production, with ice, can be conveniently stored and equipped with an accurate thermometer located in the room or box.

(3) Ice shall preferably be manufactured in the plant, otherwise it shall be obtained from an approved source. Packers purchasing crushed ice shall secure it from dealers who handle, crush and deliver it in a sanitary manner.

(4) Ice bins shall have smooth, impervious ice contact surfaces and shall be so constructed and located that the bottom is above the level of the adjacent floor and drains away from the unused ice.

(5) Block ice shall be properly stored to avoid contact with contaminated surfaces and shall be thoroughly washed on an elevated metal stand or grating with a hose provided for this purpose before it is placed in the crushing machine. A corrosion resistant container shall be provided to catch the crushed ice falling from the crusher (where the crusher is located in a protected portion of the refrigeration room, this container is not required.)
(6) All facilities, equipment, and utensils employed in handling and/or preparing ice for use shall be used for no other purpose and shall be cleaned each day the plant is in operation. Shovels shall be hung or stored in a protected manner when not in use.

(7) Where it is necessary to have ice in the packing room a metal lined container or compartment of sanitary construction shall be provided for the sole purpose of storing such ice manufactured in the plant, purchased crushed ice, or block ice that has been crushed in the plant; except that clean wooden barrels for shipping crab meat may be used for this purpose.

(8) All cooked crab shall be stored at a temperature between 33 degrees F(0.5 degrees C) and 40 degrees F(4.4 degrees C) ambient air temperature, if not, immediately processed and all picked crabmeat shall be maintained at a temperature no higher than 40 degrees F(4.4 degrees C).

(9) Frozen crab meat shall be maintained or stored at an air temperature of zero degrees F. or less, and shall not exceed a product temperature of 10 degrees F. increase during transit.

(10) Crab meat for freezing shall be frozen within 24 hours of the time it is picked.

(11) Where air cooling units, condensers or other cooling equipment is attached to the ceiling or wall in ice boxes or refrigeration rooms, the drain lines and drain pans from such equipment shall be plumbed to discharge in a floor drain, preferably outside of the cooler, and shall be maintained in such a manner as to prevent condensation water from leaking or dripping onto ice, cooked crab or crabmeat product being stored in the refrigerated room.

40-7-4-.06 Receiving of Fresh Crabs.

(1) Only fresh crabs shall be accepted for processing. No crab plant shall pick crab meat from any interplant shipment of cooked crabs or portions thereof without special authorization from the department.

(2) Fresh crabs and conch shall be cooked as soon as possible after receipt at the processing plant.

(3) Fresh crabs or live conch shall not be accepted at crab plant in large metal drums. If crabs are received in large drums they shall be leakproof and constructed of an impervious material which is easily cleanable and non-toxic.

(4) Crabs may be washed or purged before processing.

40-7-4-.07 Cooking.

(1) Crabs shall be cooked under steam pressure until such time that the internal temperature of the centermost crab reaches 235 degrees F (112.8 degrees C). Temperature shall be measured with an accurate registering thermometer having a range of 170 – 270 degrees F (77 - 132 degrees C).

(2) Nothing in these regulations shall prohibit any other cooking process which has been found equally effective and which has been approved by the department.

(3) The retort shall be constructed to permit a working pressure of at least 20 pounds per square inch (psi) steam inlet and venting shall provide a uniform and complete distribution of steam. Venting shall be sufficient to permit complete elimination of air from the retort. If more than one vent is needed, one vent shall remain in an open position at all times. Steam disbursement within the retort must be horizontal and upward.

(4) All retorts shall be equipped with:
(a) An accurate, indicating thermometer with a range that will include 170-270 degrees F (77-132 degrees C) and located with the sensor extending into the heat chamber.

(b) An opening pressure indicator, at least three inches in diameter, with a 0-20 psi range and located adjacent to the indicating thermometer.

(c) A safety valve operational at 18-30 psi, located in the upper portion of the retort, protected from tampering and designed to prevent injury to the operator.

(d) The boiler shall be of such capacity as to maintain 45 to 100 psi during cooking. The steam line from the boiler to the retort shall be at least one and one-fourth inch inside diameter.


40-7-4-.08 Cooling of Cooked Crab.

(1) Cooked crabs, after removal from the retort must be moved immediately to a protected area to be air cooled to room temperature without being disturbed.

(2) Cooked crab shall be stored in original cooking basket and must be placed under refrigeration at 40 degrees F (4.4 degrees C) or less if not debacked within 6 hours following cooking.

(3) Cooked crab which is not debacked during the work shift that cooking is completed shall be brought to an internal temperature in the center most crab of 40 degrees F (4.4 degrees C) or less within 24 hours of cooking.


40-7-4-.09 Picking of Crabmeat.

(1) The process of picking crabmeat shall be conducted in a sanitary manner and in such a manner as to prevent contamination. All cooked crab placed before a picker shall be picked before a new supply is delivered.

(2) Picked crabmeat shall be delivered to the packing room at least every 90 minutes or upon the accumulation of five pounds of meat per picker whichever is sooner.

(3) Paper towels used at the picking table shall be discarded after initial use and a new supply provided.

(4) Handles of picking knives shall not be covered with any material.

(5) Where meat is picked directly into the packing container, a container of sanitary construction shall be provided for the sole purpose of bactericidal treatment of packing containers in an approved sanitizing solution maintained at not less than 150 ppm residual chlorine. This container shall be located away from any splash from hand lavatory or utensil washing sinks.

(6) If provided, bactericidal solutions at picking tables shall be maintained at 100 ppm residual chlorine solution or equivalent approved sanitizing solution. A suitable testing method or equipment shall be available and used regularly to test chemical sanitizers to insure minimum prescribed strengths.

(7) The use of reusable picking containers shall be prohibited.


40-7-4-.10 Packing of Crabmeat.
Additional Regulations Applicable to
Crab Meat Plants

Chapter 40-7-4

(1) The process of packing crabmeat shall be conducted in a sanitary manner and in such a manner as to prevent contamination.
(2) Cans, lids, or other containers for packaging crab meat shall be clean, sanitized, single service, made of an approved material, and capable of being tightly sealed.

(3) Crab meat shall be packed in a container, iced and cooled to an internal temperature of 40 degrees F (4.4 degrees C) or below within two hours of receipt in the packing room.

(4) The return of overage to a picker shall be prohibited.

(5) Blending of fresh, and/or frozen, and/or pasteurized crab meat shall be prohibited.

(6) Only those individuals responsible for packing crab meat shall be allowed in the packing room or area.

(7) Any substance added to cooked crab or crab meat shall be approved and labeled according to federal and state rules and regulations.

(8) Only clean new shipping barrels, boxes and containers shall be used for shipping of crab meat.

(9) The certification number issued by the department preceded by state abbreviation shall be legibly impressed, embossed, or lithographed in or on the sides of the containers in which crab meat is packed, except when the lid becomes an integral part of the container during the sealing process the number preceded by state abbreviation may appear on the lid; name and address of the firm or distributor shall be similarly marked on the container lid. Plastic bags shall have the name and address of the packer or distributor and certification number of the packer preceded by state abbreviation, permanently marked on them. (Hand stamping is unacceptable).

(10) Containers bearing a certificate number other than that of the respective plant shall not be allowed in the plant.


40-7-4-.11 Pasteurization Process Controls (Thermometers).

(1) Both recording and indicating thermometers shall be provided on all pasteurizing equipment, and serve as time temperature controllers. The bulbs of both thermometers shall be so located as to give a true representation of the operating temperature of the water bath. The recording thermometer chart shall be at least a 24-hour chart and at least 12 inches in diameter.

(2) The recording thermometer shall be installed so that it will be protected from vibration and from striking by loading operations of plant traffic. The thermometer mechanism shall be so located as to be protected from moisture under prevailing operating conditions. The thermometer case shall not be opened during the pasteurizing cycle except for temperature check, or emergency adjustment or repair, a record of which shall be made.

(3) The recording thermometer shall have a range of at least 120-220 degrees F (48.9- 104.4 degrees C). It shall be accurate within plus or minus 1 degree F between 160 degrees F (71 degrees C) and 200 degrees F (93 degrees C). The chart shall be scaled at a maximum of 2 degrees F intervals in the range of 160 degrees F (71 degrees C) and 200 degrees F (93 degrees C).

(4) The indicating thermometer shall be a thermometer with an accuracy and readability of plus or minus 1 degree F between 160 degrees F (71 degrees C) and 200 degrees F (93 degrees C). The thermometer shall be protected against damage.

(5) The recording thermometer shall be equipped with a spring-operated or electrically operated clock. The recorded elapsed time as indicated by the chart rotation shall not exceed the true elapsed time as shown by an accurate watch. The rotating chart support shall be provided with pins upon which the chart shall be affixed by puncturing the chart.
(6) The pasteurization unit shall not be operated without a recording thermometer chart in place, the pen in contact with the chart and an inked record being made of the operating time-temperature cycle. Any indication of falsification of a thermometer chart shall constitute a violation. A permanent file of the used thermometer charts shall be maintained by the pasteurizer and kept available for inspection by the department for a period of two years. A new chart shall be used for each days operations and the code number or date of each batch affixed to the chart for each pasteurizing cycle. The following information shall be recorded within the confines of the pen marking after the pasteurization cycle has been completed.

(a) Date of pasteurization.

(b) Quantity of each batch pasteurized (pounds of crab meat or number and size of containers).

(c) Processor's code of each pack.

(d) If the plant receives authorization to pasteurize crabmeat from another certified plant, from the department, then the packer's name, address and certification number must be recorded.

1. A copy of the recording chart shall be provided to the owner of the crab meat.

(e) Notation of mechanical or power failure, or opening of the recording thermometer case for adjustment or repair during the pasteurizing cycle.

(f) After the optimum temperature has been reached and during the holding time, the reading of the indicating thermometer and the time of reading shall be recorded on chart.

(g) Written signature of the pasteurizer operator.

1. In some instances it will be necessary to attach a log of each batch pasteurized to the daily recording thermometer chart. The attached log sheet shall record the time that each container is placed into the pasteurizing vat, when it is removed, when it is placed into the cooling tank, and when it is removed from cooling. Each container placed in the water bath shall be appropriately identified by a number.

(7) A constant flow steam control valve is required, if steam is used as a source of heat. Advisory:

(a) Do not overload the water bath. Overloading can often result in undercooked meat.

(b) Better distribution of heat is provided if steam is released from the side of the steam discharge spreader pipes in the base of the water bath - this results in the tangential release of steam.

(c) The containers should be immersed to a depth of six inches below the surface of water with a minimum of three (3) inches of clearance of the sides of the water bath and a minimum of two (2) inches of clearance of the bottom.

(d) The basket cover should be perforated for water circulation.

(8) The water bath shall be provided with effective agitation to maintain a uniform temperature.


40-7-4-.12 Preparation of Crab Meat for Pasteurization.

(1) Crab meat for pasteurization shall be processed in compliance with existing rules and regulations for operation of a certified crab plant in Georgia.

(2) Containers of crab meat for pasteurization shall be sealed as quickly as possible after the meat is picked.
(3) The sealed container of crab meat shall be placed immediately in ice and refrigerated if the pasteurization process is to be performed at some period of time greater than sixty (60) minutes of sealing the can or container.


40-7-4-.13 Pasteurization of Crab Meat.

(1) Crab meat for pasteurization shall be pasteurized within 36 hours of the time it is picked. The minimum pasteurization specifications shall be the raising of the internal temperature of the container of crab meat to 185 degrees F (85 degrees C) and holding at that temperature for at least one minute at the geometric center of a container.

(a) Each set of pasteurizing equipment shall be standardized so that the minimum pasteurization procedure in this subparagraph can be obtained.

(b) The pasteurization procedure shall be performed in accordance with the standardization report.

(c) The pasteurizer shall keep on file the standardization report and shall provide the department a copy of such report.

(d) Nothing in these regulations shall be construed as prohibiting any other pasteurization process which has been found equally effective and which has been approved by the department. Advisory: This means that temperature-time requirements must be determined for each water bath and for other conditions, such as the temperature of the meat, for the size of the container and other variables. Plant operators are warned that time-temperature conditions for one water bath may not give a satisfactory pasteurization on another water bath.

(2) Alteration of the equipment or loading of containers shall require the process to be restandardized.

(3) The containers of crab meat shall be cooled to 50 degrees F (10 degrees C) or below within (3) three hours after initial entry into the chill tank.

(a) The procedure for chilling shall be standardized.

(4) Refrigerated storage shall be provided for the chilled crab meat and it shall maintain a storage temperature at or below 36 degrees F (2.2 degrees C) but above 32 degrees F (0 degrees C).


40-7-4-.14 Labeling of Pasteurized Crab Meat.

(1) The label used shall clearly identify the contents of the container as pasteurized crab meat. Whenever the term "crab meat" (or its equivalent) appears on the label, the word "pasteurized" shall be used in immediate conjunction, in prominent type.

(2) Each container shall be permanently and legibly-identified with a code indicating the batch and day of processing.

(3) The words "Perishable — Keep Under Refrigeration", or equivalent, shall be prominently displayed on the container.

(4) The packer's certification number issued by the department, preceded by the state abbreviation shall be legibly impressed, embossed or lithographed on each container. Each container shall also bear the name and address of the certified packer or distributor.
40-7-4.15 Recall Procedure. Each owner of a certified plant producing cooked crab or crab meat shall keep on file a written product recall procedure. A copy of this recall procedure shall be provided to the department.

40-7-4.16 Supervision in the Crab Plant. The owner or manager shall either personally or shall designate an individual whose principal duty shall be to supervise and be responsible for the compliance these rules and regulations.

40-7-4.17 Sampling and Testing.

(1) Samples of cooked crab or crab meat may be secured at any time or place by the department or its agent at the crab plant, after paying or offering to pay for such sample, for the purpose of laboratory analysis.

(2) The department or its agent may also secure samples of cooked crab, crab meat, other crustacea, and any product which has been processed, offered for sale, distributed or otherwise introduced into trade from any establishment or transported vehicle when deemed necessary, for the purpose of laboratory analysis.

40-7-4.18 Embargo or Disposal of Cooked Crab, Crabmeat, or other Products Processed at the Crab Plant.

(1) When it has been determined by the Division that cooked crab or crab meat have not been stored, transported, handled, cooked, picked, packed or offered for sale in compliance with this Section, the cooked crab or crab meat shall be deemed adulterated.

(2) Cooked crab, crab meat or other products processed for sale to the public determined to be adulterated or misbranded, shall be subject to embargo or disposal by the Department in accordance with the Georgia Food Act 26-26 and 26-2-28. (GA. L. 1956)

(3) The Department may embargo, condemn, destroy or otherwise dispose of all cooked crab, crab meat, or other product processed at the plant found to be adulterated or misbranded.

40-7-4.19 Microbiological and Contamination Standards.

(1) Cooked crab or crab meat shall not exceed Escherichia coli Most Probable Number (MPN) of 36 per 100 grams of sample or exceed a standard plate count of 100,000 per gram.

(2) Pasteurized crab meat shall contain no Escherichia coli or fecal coliform. Samples of pasteurized crab meat taken within 24 hours of pasteurizing shall not have a standard plate count of more than 3,000 per gram.

(3) Cooked crab or crab meat shall not contain pathogenic organisms in sufficient numbers to be hazardous to the public health.

(4) Cooked crab or crab meat shall not be contaminated by any other substance which renders it unsafe for human consumption.
(5) Cooked crab or crab meat found not complying with the standards as stated in Paragraph (a), (b), (c), or (d) of this Rule may be deemed adulterated by the Division.


40-7-4-.20 Other Products Processed at the Crab Plant after the Operating Season.

(1) Other products which are received into the crab plant for further processing such as conch, and other crustacea shall be processed in accordance with good general manufacturing practices.

(a) The processor shall meet all the requirements for plant design and sanitation set forth in Chapter 40-7-1 General Regulations, Georgia Department of Agriculture.

(b) The processor shall have an approved written process schedule which includes all cooking and/or pasteurization procedures for all products which are processed at the plant.

1. A copy of the written process schedule shall be on file with the department and any deviation or departure from this process will require a new written process schedule.