



State of Alaska Food Safety and Sanitation Program

Shellfish Dealer Education Program

Alaska Department of Environmental
Conservation
Division of Environmental Health - Food Safety
and Sanitation Program
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<http://www.dec.alaska.gov/eh/fss/index.htm>

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All shellfish dealers are required to complete the Shellfish Dealer Education Training (Chapter VIII .01 B). **The training will need to be completed prior to receiving an Alaska State Shellfish Dealer Permit to Operate and every five years thereafter.**

By reviewing this information, **passing** the quiz, printing and signing the certificate at the end, you will satisfy this education requirement. For questions and additional information please contact:

George Scanlan, Shellfish Permit Coordinator
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Alaska's Shellfish

There are four main types of bivalve shellfish that are harvested from Alaska waters:

1. Clams
2. Mussels
3. Oysters
4. Scallops (whole animals only)

The harvest and subsequent processing of shellfish are regulated cooperatively by ADEC and the Federal Food and Drug Administration (FDA) using the National Shellfish Sanitation Program (NSSP).



Figure 1: Flow of shellfish after harvest.

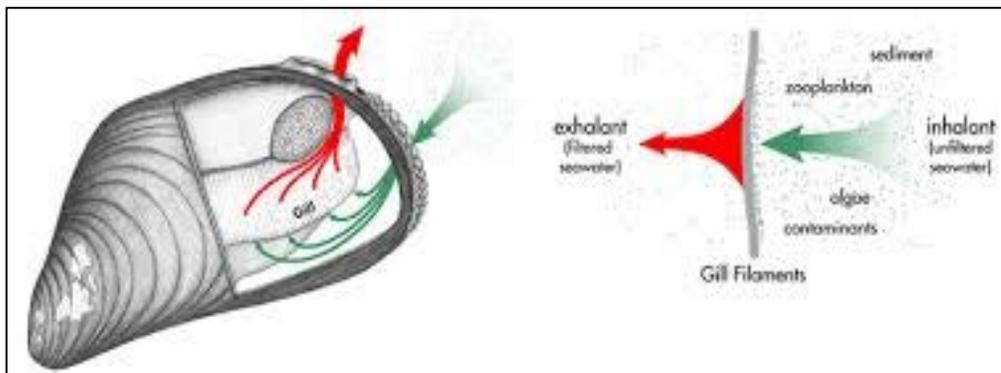
The NSSP is recognized by the Interstate Shellfish Sanitation Conference (ISSC) for the sanitary control of shellfish produced and sold for human consumption.

Complying with these regulations allows your product to be sold commercially for human consumption.

Hazards

Shellfish are filter-feeders that are often eaten raw or lightly cooked. Filter feeders take in nutrients from the ocean by drawing water over filtration structures. The ocean water can include things like **bacteria, viruses, and chemicals**. If there are enough of these things, it can accumulate in the shellfish and may make people sick. **Even if cooked to proper temperatures, shellfish can contain heat resistant viruses and chemicals that can make people sick.**

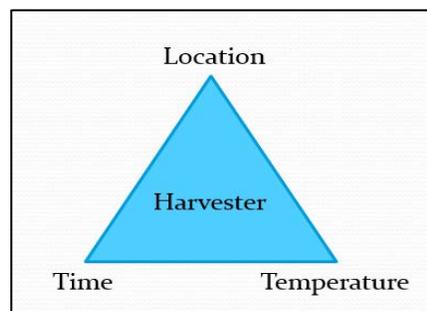
Illnesses frequently associated with shellfish include Paralytic Shellfish Poisoning (PSP), norovirus, Hepatitis A, and Vibriosis. For this reason it is important to know the hazards and take appropriate steps to control them.



Controlling the Hazards

To control the hazards (**bacteria & viruses, physical and chemicals**) three things must be considered:

- Location
- Temperature
- Time



Location



The first step in ensuring that shellfish is safe is to make sure it comes from waters that are classified, approved, and opened for growing and harvesting. Many considerations go into determining if an area can be used to harvest or grow shellfish including:

- Weather or other environmental conditions
- Location of human habitation or industry developments
- Fisheries
- Presence of streams, wild animals, or resident and migrating bird populations
- Harvest periods and methods
- Species to be grown or harvested
- Recreational use of the area
- Proposed boundaries and topography

In addition, the growing or harvest area waters must meet the fecal coliform standards set out in the NSSP. This means the water must be regularly tested for the presence of fecal coliform.

As a licensed dealer you should provide ADEC-FSS with an email address to allow you to receive emails when a growing area has been closed. In addition, you are required to provide a phone number with a voicemail so phone messages can be left by ADEC-FSS when a growing area has been closed.

Harvesting shellfish from closed or prohibited areas is illegal.

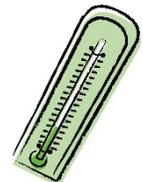
For more information on how waters are classified visit:

<http://dec.alaska.gov/eh/fss/seafood/Docs/shellfishclass.pdf>

Temperature

Temperature control must be applied to all shellstock as soon as practically possible after the harvested shellstock is no longer submerged to prevent bacteria from growing. This can be done by placing shellfish on ice or in a mechanically refrigerated unit. All shellstock must be maintained at:

- an ambient temperature of 45°F or less; or
- an internal temperature of 50°F or less.





Time

For oysters, time requirements are applied in addition to temperature requirements to prevent *Vibrio parahaemolyticus* (Vp) bacteria from growing. The amount of time allowed for cooling depends on the month the oysters were harvested in.

June 15th to September 15th: Oysters must be harvested within the State's *Vibrio Parahaemolyticus* Time/Temperature Control Plan. Shellstock must be harvested and chilled to an ambient temperature of 45°F ambient or 50°F internal temperature within **5 hours, 3 hours or 1 hour depending on the water temperature and air temperature** at harvest. See the Sate's Vp Control Plan for details. Primary Dealers receiving shellstock has up to **10 hours** to keep the shipment in cold storage at ≤45°F or ≤50°F internal temperature.

[ADEC Vibrio Parahaemolyticus Control Plan](#)

October 1st to May 31st: Oysters must be harvested according to the following Time/Temperature matrix:

| Action Level | Average Monthly Maximum Air Temperature | Maximum Hours from Exposure to Receipt at Dealer's Facility |
|--------------|---|---|
| Level 1 | <50 °F (14.4 °C) | 36 hours |
| Level 2 | 50 °F - 60 °F (10 °C - 15 °C) | 24 hours |
| Level 3 | 60 °F - 80 °F (15 °C - 27 °C) | 18 hours |
| Level 4 | >80 °F (≥20 °C) | 12 hours |
| | | |

All HACCP Records associated with the control of time and temperature during harvesting and shipping must be adequately maintained, reviewed and verified by the HACCP Trained individual.

Handling

After the shellstock has been removed from the water, steps should be taken to keep it from environmental contamination. Dirt and filth from birds, unclean water, chemicals, and other environmental contaminants can transfer to shellstock and make consumers sick.

Protect shellfish from contamination during handling by making sure work surfaces are covered to protect from birds and bird droppings and sorting tables are kept clean. Also rinse any mud or sand with clean water and store shellstock covered in clean plastic totes.

When harvesting take care not to mix shellfish lots. This is called comingling and it is **prohibited**. A lot is considered one day of harvested shellfish of a specific species from a specific growing area. For example, razor clams harvested on January 1st would be labeled Lot A while razor clams harvested on January 2nd would be Lot B.

Once in the plant, shellfish should be handled and stored in a way that protects them from contaminants. For example, muddy shellfish should be rinsed prior to processing/storage to protect other shellstock, utensils, or other food contact surfaces. Dead or unwholesome shellstock should not be processed because they may contaminate the rest of the lot. Only food grade or Generally Recognized as Safe (GRAS) approved ingredients and additives should be used.

Transportation

Vessel/Vehicle Condition and Sanitation

To keep your shellstock safe during transport on your vessel or vehicle the following must be considered:

- An approved marine sanitation device must be on board the vessel to contain sewage.
- The vessel must be constructed in such a way to prevent contamination of bilge water with shellstock.
- Potential sources of contamination (such as fuel cans) must be kept away from shellstock storage.
- Cats, dogs, or other animals shall not be allowed on vessels or in the vehicle where shellfish are stored.
- In a vehicle without channeled floors, shellstock must be stored on a pallet or in a tote.
- Product should not be mingled with other species or product harvested on a different day or growing area.

Tagging:

Correct shellstock identification is very important in protecting consumer health. In the event of a shellfish related illness, tags and records are used to trace the shellstock from the consumer back through to where the product was harvested. Shellstock needs to be retagged with a dealer tag. Dealer tags need to include the

- Who – Dealer certification number, name, and address
- When – Harvest date
- Where – Harvest location
- What – Type of shellfish and quantity
- Consumer Advisory Statement if intended for raw consumption
- “Keep Refrigerated”
- **“THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS”**

Once the product is retagged, the original harvester or dealer tag must be kept on file for 90 days.

Example of a dealer tag which meets the NSSP requirements.

| | | | |
|--|--|-----------------------|-----------------|
| KEEP REFRIGERATED <input type="radio"/> | PROCESSOR NAME | | Cert. No. |
| | Address | | |
| | City, State Zip Code | | |
| | HARVEST DATE: | | |
| | HARVESTED IN: (STATE) | | |
| PERISHABLE <input type="radio"/> | HARVEST LOCATION: | | |
| | TYPE OF SHELLFISH: | | |
| | QUANTITY OF SHELLFISH: | | |
| | THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS. | | |
| | TO: | RESHIPPER'S CERT. No. | DATES RESHIPPED |
| | | | |
| RETAILERS, INFORM YOUR CUSTOMERS Thoroughly cooking foods of animal origin such as beef, eggs, fish, lamb, poultry, or shellfish reduces the risk of foodborne illness. Individuals with certain health conditions may be at higher risk if these foods are consumed raw or undercooked. Consult your physician or public health official for further information. | | | |

All shellfish tags must be durable, waterproof and approved by the authority prior to use. Information written on the tag must be indelible and legible.

Shipping your Shellstock

Harvested shellstock must be properly tagged. All harvested shellstock must comply with the applicable time to temperature requirements of:

- The state Vp Control Plan
- Chapter VIII @.02 Shellstock time to temperature controls.

Shipping Documentation

All shipments of shellstock to another dealer shall be accompanied by shipping documentation as required by Chapter IX .04 and.05. This means the shipper will give the receiver the following information:

- Time the product was shipped
- AND
- Notation that the conveyance was pre-chilled to 45 or less prior to shipping
- OR
- The product was shipped adequately iced

Sanitation

All dealers are required to monitor the eight key points of sanitation listed below.

1. Safety of water for processing and ice production
 - Water supply (well vs community water system), water used for ice production, water used to wash shellstock, plumbing and related facilities (cross connections)
2. Conditions and cleanliness of food contact surfaces
 - Equipment and utensil construction, cleaning and sanitizing, storage, employee gear
3. Prevention of cross-contamination
 - Protection of shellfish, separation of operations, employee practices
4. Maintenance of handwashing, hand sanitizing, and toilet facilities
 - Hand washing facilities/sinks, hand sanitizing, sewage, toilets

5. Protection from adulteration
 - Shellfish, packaging material, and food contact surfaces protected from microbial, chemical, and physical contaminants
6. Proper labeling, storage, and use of toxic compound
 - Storage, use, and labeling of toxic chemicals such as sanitizers, pesticides, lubricants, etc
7. Control of employee health conditions
 - Exclude workers with illness, wounds, or other affliction that could be a source of contamination to food
8. Exclusion of pests
 - Prevent pest attraction and exclusion of pests from the facility



Not only are all dealers required to monitor the 8 key points of sanitation, they have to document the monitoring activities. This means each dealer should have a form that they record that they monitor each of the eight key points, date/time of monitoring, and note any deficiencies/corrective actions.

Hazard Analysis Critical Control Point (HACCP)

Hazard Analysis Critical Control Point, or HACCP, is a preventative food safety approach to minimize, significantly reduce, and/or eliminate hazards associated a product and/or process. All dealers are required to be trained in HACCP. In addition, all dealers are required to develop and implement a written HACCP plan. HACCP plans are specific to each company and location. The plans must be reviewed and signed annually or after the plan is updated.

For more information on HACCP training, please visit the Alaska Sea Grant Marine Advisory Program website below for more information.

[Alaska Sea Grant Marine Advisory Program – HACCP Workshops](#)

Recall plans

Dealers are required to have a written recall plan. A recall plan is a protocol a company develops and follows in the event of a recall. If a product is unsafe for human consumption and it enters into commerce (leaves the facility), then a company needs to recall the product back into their possession. The dealer must notify DEC and consignee(s) on a timely basis and move swiftly to effectively remove the affected product.

At minimum, the recall plan must include:

1. List of customers
2. Current customer contact information
3. Contact information for ADEC-EH-FSS Program

QUIZ

QUESTIONS:

1. All of the following are examples of bivalve shellfish harvested in Alaska waters except
 - a. oysters
 - b. shrimps
 - c. mussels
 - d. clams
 - e. scallops (whole animals only)
2. Illnesses frequently associated with shellfish include
 - a. Paralytic Shellfish Poisoning (PSP)
 - b. Norovirus
 - c. Hepatitis A
 - d. Vibriosis
 - e. All of the above.
3. To control hazards that can lead to illness, what are the three critical items that must be considered?
 - a. Time, Temperature, and Location
 - b. Size of shellfish, Temperature, and Location
 - c. Time, Tide, and Price
 - d. Method of harvest, Tide, Time

4. To assure that shellstock is safe, the location or area of harvest must be
 - a. Classified by the authority
 - b. Approved
 - c. In the open status
 - d. All of the above
5. What is the time period when the Alaska State Vibrio Control Plan must be followed?
 - a. March 1st – August 31st
 - b. May 15th – September 15th
 - c. April 1st – October 31st
 - d. June 15th – September 15th
6. The tag information is very important for identifying the
 - a. Date of harvest
 - b. Location or area of harvest
 - c. Quantity of harvest
 - d. The Permit number of the dealer
 - e. All of the above
7. All Shipments of shellstock to another dealer must be accompanied by shipping documentation as is required by chapter IX .04 and .05
 - a. True
 - b. False
8. All dealers are required to monitor the eight points of sanitation.
 - a. True.
 - b. False
9. The HACCP Plan is a preventive food safety approach to minimize, significantly reduce, and/or eliminate hazards associated a product and/or process.
 - a. True
 - b. False.
10. All dealers are required to have a recall plan:
 - a. True
 - b. False.

Congratulations!

You have successfully completed the Shellfish Dealer Education Training. Please fill out the certificate below and mail or email to George Scanlan, Shellfish Permit Coordinator.

State of Alaska DEC - Food Safety and Sanitation Program
George Scanlan, Shellfish Permit Coordinator
555 Cordova St, Anchorage AK 99501
Phone: (907)269-7638, Fax: (907)269-7510
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CERTIFICATE OF SHELLFISH DEALER EDUCATION TRAINING

NAME: _____

Has successfully completed the Shellfish Dealer Education Training

STATE OF ALASKA FOOD SAFETY AND SANITATION PROGRAM



SIGNED: _____

DATE: _____