

Massachusetts 2014 *Vibrio Parahaemolyticus* (VP) Control Plan

Commercial Harvest Restrictions for Oysters May 19 - October 19, 2014:

A. Definitions:

Adequately iced means the amount and application of ice to completely surround oysters in a container to ensure immediate cooling begins and continues for all oysters. To accomplish this, oysters either loose or in mesh bags shall be placed in appropriate containers, and

- If oysters are in mesh bags, as referenced above, the bags must be completely surrounded by ice, with at least two (2) inches of ice between the bags and the bottom and sides of the container, and at least three (3) inches of ice on top.
- If an ice slurry is used and the oysters are submerged, then the presence of ice in the slurry indicates adequate icing. Ocean water from an area classified as **Approved*** or **Conditionally Approved*** by the Division of Marine Fisheries and in the “open status” may be used to constitute the slurry.
- If loose oysters are placed into a container then oysters must be completely surrounded by ice, with at least two (2) inches at the bottom and sides of the container, and at least three (3) inches of ice on top.
 - However, a harvester who is an **original dealer*** may transport oysters in his or her insulated, mechanically refrigerated vehicles provided that the refrigerated storage area has been pre-chilled to an ambient temperature of $\leq 45^{\circ}\text{F}$ prior to loading and individual containers of oysters held in the vehicle have at least three (3) inches of ice on top of each container. Transport by this method does not require two (2) inches of ice on the sides and bottom of the container. Additionally, the **original dealer*** must record the ambient temperature of the vehicle’s refrigerated storage area (including the time the temperature was taken) in his or her *Vp* harvest logbook (see section B.7a) prior to transport and in the **original dealer’s*** receiving records upon receipt at his or her facility.
- All ice used to cool shellfish must originate from approved sources of potable water, as established under the National Shellfish Sanitation Program.

Adequately shaded means measures shall be taken to prevent oysters from direct exposure to sunlight.

Approved means a classification used to identify a growing area where harvest for direct marketing is allowed.

Conditionally Approved means a classification used to identify a growing area which meets the criteria for the approved classification except under certain conditions described in a management plan.

Internal temperature means the external temperature of the shell of the animal, at the center of a packaged mass of oysters (a box, sack, bag, etc.).

Lot means containers of oysters consisting of no more than one day's harvest from a single defined growing area gathered by one harvester.

Market-sized oysters mean those oysters measuring at least 3" in shell length. For those aquaculturists authorized by the Division of Marine Fisheries to sell undersized ("petite") oysters to wholesale dealers for out-of-state resale, market-sized oysters means those oysters measuring at least 2 3/4" in shell length.

Original dealer means a wholesale dealer authorized by the Division of Marine Fisheries as a primary buyer in order to purchase shellfish in Massachusetts directly from permitted commercial harvesters.

Re-submergence means the return of **market-sized oysters***, including noncompliant and/or recalled oysters, to the original culture site ("grant") waters only after completion of anti-fouling or culling activities.

Seed oysters means any oyster measuring less than 3" in shell length or in the case of aquaculturists authorized by Division of Marine Fisheries to sell undersized ("petite") oysters to wholesale dealers for out-of-state resale, seed oysters means those oysters measuring less than 2 3/4" in shell length.

Shellfish container means a container that is smooth, in good condition, is easily cleaned, impervious to water, insulated, self-draining, has a tight-fitting lid, and has a light-colored exterior (e.g. Bonar box, etc.).

Time of icing means the time when the last oyster or bag of oysters is placed in a shellfish container that is **adequately iced***.

Time of harvest means the time when the first oyster in a **lot*** is taken from the water or, in the case of intertidal harvest, the time of first exposure to the air by tide.

Wet Storage means the storage, by a dealer, of oysters from growing areas in the approved classification or in the open status of a conditionally approved classification in containers or floats in natural bodies of water or in tanks containing natural or synthetic seawater at any permitted land-based activity or facility.

B. Harvesters:

1. This plan shall only apply to **market-sized oysters*** and no provision of this plan shall apply to **seed oysters***.
2. The requirements of this plan shall apply to the commercial harvest of both privately cultured oysters as well as wild oysters from the public fishery.
3. The requirements of this plan shall apply to all **market-sized oysters*** harvested in Massachusetts coastal waters from May 19, 2014 through October 19, 2014. For the purposes of this plan coastal waters are the intertidal and subtidal zones where oysters are cultured or grow naturally.
4. All oysters harvested from May 19, 2014 through October 19, 2014 shall be **adequately shaded*** during harvest and subsequent transport from the harvest area to the **original dealer***.
5. All shellfish tags shall include **time of harvest*** and **time of icing***, in addition to harvest date, harvest area, identification of harvester, type of shellstock and quantity. The **time of harvest***, or when oysters are exposed by tide, shall be legibly written on the harvester tag with indelible ink at the beginning of harvest, which is when the first oyster is removed from the harvest waters or is exposed by tide.
6. All oysters shall be **adequately iced*** by the harvester within two (2) hours of the **time of harvest*** or exposure by tide, or at the point of landing immediately after harvest, whichever occurs first. **Time of icing*** shall be written on the harvester tag with indelible ink when the last oyster or bag of oysters is placed in a **shellfish container*** and **adequately iced***.
7. Shellfish Handling by Harvesters:
 - a. Each harvester will keep a bound *Vibrio parahaemolyticus* (*Vp*) harvest logbook that records the date, **time of harvest***, **time of icing***, quantity harvested (bushels, count bags, etc.), return of off-site culled **market-sized*** oysters (Section A.8), anti-fouling practices (Section A.9), non-compliant and/or recalled oysters (Section A.10), and the **original dealer*** who received the product recorded legibly with indelible ink.
 - b. Logbooks shall be completed before leaving the landing site and before harvested oysters are placed in transit to the **original dealer***, except that the **original dealer*** information shall be completed upon transfer of the oysters at the **original dealer's*** facility.
8. Off-site Culling:

* See Definitions Section

- a. **Market-sized oysters*** (either legal size or “petites”) may be removed from the culture site (“grant”) for off-site culling per conditions of the grower’s Division of Marine Fisheries Aquaculture Permit provided the oysters are returned to the original culture site (“grant”), segregated and tagged, and re-submerged for a minimum of 14 days from the last date of removal. This requires the harvester to notify the local shellfish authority and maintain a record in the *Vp* logbook of the date and quantity of the **market-sized oysters*** returned to the culture site after off-site culling.
 - i. The tags must identify these oysters as “culled off-site” and record the date that the oysters were returned to the culture site. The tags must be waterproof and completed with indelible ink.
 - ii. At final harvest after 14 days, oysters shall be tagged as required at B.5.
 - iii. **Seed oysters*** may be removed from the grant for culling as normally allowed in accordance with the harvester’s Division of Marine Fisheries Aquaculture Permit.
9. Anti-fouling practices include the removal of oysters from harvest waters for the purpose of removing undesirable organisms from oysters:
- a. **Market-sized oysters*** may be harvested after anti-fouling processes; provided the oysters are segregated and tagged, and re-submerged for a minimum of 14 days before being placed in commerce.
 - b. The tags must identify the oysters as “anti-fouled” and record the date of **re-submergence***. Tags must be waterproof and completed with indelible ink.
 - c. A record must be maintained in the *Vp* logbook of the quantity of oysters, the date of **re-submergence*** and the purpose for the activity.
 - d. At final harvest after 14 days, oysters shall be tagged as required at B.5.
10. Wet Storage:
- a. Wet storage of **market-sized oysters*** is only allowed on the licensed culture site (“grant”) from where the oysters originated and by the permitted aquaculturist.
 - b. Wet storage of **market-sized oysters*** at other locations or from multiple sources is not allowed unless specific authorization is granted by the Division of Marine Fisheries or the Department of Public Health in accordance with the provisions of the National Shellfish Sanitation Program’s Guide for the Control of Molluscan Shellfish 2011 Revision, Section II, Chapter VII.
 - c. Oyster processing activities (e.g. culling, sorting, etc.) that exceed the two hour requirement for adequate icing at Section B.6 of this Plan that are conducted at “oysterplexes”, barges, or other floating structures shall be considered off-site culling and are subject to the requirements of Section B.8. Off-site Culling.
11. Re-submergence of Noncompliant and/or Recalled Oysters:

- a. Non-compliant and/or recalled **market-sized oysters*** may be re-submerged for a minimum of 14 days after approval granted by Division of Marine Fisheries and the Department of Public Health and under supervision of the local Shellfish Constable. Oysters must be tagged and segregated during **re-submergence***.
- b. Tags must identify the oysters as “non-compliant” or “recalled” and record the date of **re-submergence***. Tags must be waterproof and completed with indelible ink.
- c. A record must be maintained in the *Vp* logbook of the quantity of oysters, and the date and purpose of **re-submergence***.
- d. In the case of a recall as the result of a harvest area closure due to illness, only oysters received from harvesters and stored at the **original dealer’s*** facility will be allowed to be **re-submerged***. Recalled oysters distributed into commerce by the **original dealer*** may not be returned to the harvest site and will be subject to disposal.

12. Transport of Oysters to the Original Dealer:

- a. All oysters shall be transported to the **original dealer’s*** physical facility for sale as required by 105 CMR 533.007 (1)(3)(f)(1-2). Harvesters are prohibited from holding oysters at a private residence or unlicensed facility prior to delivery to the **original dealer***.

C. Original Dealers:

1. All oysters received by the **original dealer*** between May 19, 2014 and October 19, 2014 shall be cooled in the dealer’s facility to 50°F within 10 hours of the **time of harvest*** or tidal exposure.
2. Once received by the **original dealer***, oysters shall remain **adequately iced*** and held under refrigeration $\leq 45^{\circ}\text{F}$ for the duration of storage at the dealer’s facility until transfer to refrigerated vehicles for shipment.
3. All **original dealers*** who receive oysters harvested from Massachusetts coastal waters between May 19, 2014 and October 19, 2014 shall implement a Hazard Analysis Critical Control Point (HACCP) Plan indicating pathogen growth of naturally occurring *Vp* as a significant hazard reasonably likely to occur and include the following:
 - a. **Critical Control Point Receiving:** All oysters received by the **original dealer*** shall be properly tagged in accordance with Section B.5 of this Plan and **adequately iced*** in a manner sufficient to ensure that immediate cooling begins and continues for all oysters. For oysters that are not properly tagged or **adequately iced*** the following Corrective Actions shall be taken:

- i. Dealers shall reject any **lot*** of oysters not properly tagged and/or not **adequately iced*** per Section B.6 of this Plan. When a shipment of oysters is rejected the dealer shall document the date and time of the incident, the name of the harvester and, if possible, the harvest date, harvest area, the time of delivery of the oysters, and the harvester's Division of Marine Fisheries Commercial Shellfishing Permit number. This information shall be recorded as a Corrective Action and immediately reported to the Division of Marine Fisheries; and
 - ii. Dealers who inadvertently receive shipments of oysters not properly tagged as harvested by a licensed harvester and/or not **adequately iced*** shall place the oysters on internal hold and immediately notify the Department of Public Health's Food Protection Program, document the deviation in a Corrective Action, and await instruction from the Food Protection Program for final disposition of potentially time/temperature abused oysters; and
 - iii. Dealers shall address the root cause by discontinuing receipt of oysters from the harvester until compliance with the handling requirements identified in Section B of this Plan have improved to ensure that the Critical Limit is not exceeded.
- b. **Critical Control Point Cooling:** A Critical Limit indicating that the **internal temperature*** of oysters will be cooled to 50°F or below within 10 hours after the **time of harvest*/tidal** exposure. The **original dealer*** shall verify and record in a monitoring record that all oysters have achieved an **internal temperature*** ≤ 50°F within 10 hours prior to release for shipment. **Original dealers*** who fail to achieve the Critical Limits shall take the following Corrective Actions:
- i. Ensure oysters that are not cooled to an **internal temperature*** of 50°F within 10 hours are not directed to the raw shellfish market and;
 - ii. Document the deviation in a Corrective Action and place any remaining oysters held at the facility on internal hold, recall any noncompliant oysters that have been inadvertently shipped, and notify the Food Protection Program of the action taken; and
 - iii. Dispose of all recalled oysters; and
 - iv. Determine the root cause of the Critical Limit deviation and take preventative measures to ensure that the **original dealer's*** refrigerated cold storage is capable of cooling oysters in compliance with Section C.1 of this Plan.
- c. **Critical Control Point Storage:** The **original dealer*** shall ensure that oysters are held in refrigerated storage at ≤ 45°F ambient air temperature and remain **adequately iced*** for the duration of refrigerated storage at the dealer's facility per Section C.2 of this Plan. **Original dealers*** who exceed the Critical Limits shall take the following Corrective Actions:

* See Definitions Section

- i. Document any deviations and dispose of oysters placed in refrigerated storage not capable of maintaining $\leq 45^{\circ}\text{F}$ ambient air temperature, held at unrefrigerated ambient air temperatures $> 50^{\circ}\text{F}$, or not **adequately iced***; and
 - ii. Address the root cause by making necessary repairs to malfunctioning refrigeration equipment, ensuring that oysters are **adequately iced*** or adjusting oyster handling practices to ensure that the Critical Limit is not exceeded.
4. To comply with dealer requirements of the Plan, each **original dealer's*** facility shall maintain insulated mechanical refrigeration for cooling and storage of oysters that:
 - a. Cools oysters to an **internal temperature*** of 50°F in 10 hours or less after **time of harvest***/tidal exposure; and
 - b. Maintains an ambient temperature of 45°F or less.
5. Oysters must be chilled in the dealer's facility to an **internal temperature*** of 50°F in 10 hours or less after **time of harvest***/tidal exposure before being shipped.

Note: Dealers should be advised that cooling rates for oysters will depend on size and capacity of refrigerated storage areas. Oysters should be stored in a manner that allows for the free circulation of refrigerated air in order to achieve even and rapid cooling throughout each containerized lot of oysters. Ice shall be used in addition to, but not as a substitute for, refrigerated storage to accelerate cooling of oysters at the dealer's facility.

6. Each **original dealer's*** receiving records shall include the following minimum information:
 - a. Harvester's Division of Marine Fisheries Commercial Shellfishing Permit number;
 - b. Harvest date and area;
 - c. **Time of harvest***;
 - d. Time and confirmation that oysters are **adequately iced*** (including ambient temperature of vehicle if a harvester-dealer uses a pre-chilled vehicle for transport);
 - e. Transaction slip number;
 - f. The actual time oysters were cooled to $\leq 50^{\circ}\text{F}$ with actual **internal temperature***.
7. In addition, dealers shall comply with all relevant requirements of 105 CMR 533.000: *Fish and Fishery Products*, including but not limited to 533.007.

* See Definitions Section

8. Persons who are permitted both as a harvester and a dealer (harvester-dealers) are required to meet the conditions in both Sections B and C. If a harvester-dealer is unable to meet both sets of conditions, the harvester-dealer may operate as a harvester in accordance with Section B of this Plan.

D. Enforcement:

1. Representatives of state and local regulatory agencies (e.g. Division of Marine Fisheries, Department of Public Health, Office of Environmental Law Enforcement) shall conduct periodic unannounced inspections at harvest sites, common landings, and wholesale dealer facilities to determine compliance with the requirements of this Plan.
2. All oysters harvested under this Plan shall be subject to embargo and/or disposal if the oysters are found to be time/temperature abused or non-compliant with the requirements of this Plan.
3. Local Shellfish Constables and their deputies will conduct spot checks at harvest sites to verify harvest times on harvester tags and other controls such as shading and icing.
4. Inability or refusal of harvesters and/or dealers to maintain compliance with the requirements of this plan may result in enforcement up to and including suspension and revocation of harvester and/or dealer permits in accordance with Chapter 130, Section 2, of Massachusetts General Laws.
5. In the course of implementation of the Massachusetts *Vp* Control Plan, and in the event that an illness outbreak(s) occurs, the State Shellfish Control Authority, which consists of the Division of Marine Fisheries and the Department of Public Health, reserves the option of requiring more stringent *Vp* controls in specific affected area(s) in order to prevent additional illnesses and protect public health. In the event of sporadic illnesses, the State Shellfish Control Authority will follow the requirements established in Proposal No. 13-202, which was adopted by the Interstate Shellfish Sanitation Conference on January 31, 2014, to determine closure of areas due to illness(es).

The Massachusetts Department of Public Health, Food Protection Program and the Massachusetts Department of Fish and Game, Division of Marine Fisheries will review this Plan on an annual basis and revise it as needed to maintain compliance with the National Shellfish Sanitation Program's Model Ordinance.