

**STATE OF ALASKA**  
**DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
***Vibrio parahaemolyticus* Control Plan**

This *Vibrio parahaemolyticus* (*Vp*) Control Plan describes actions that the Alaska Department of Environmental Conservation (ADEC) and oyster –harvesting and shipping operations must take to reduce the probability of occurrence of *Vp* illnesses during periods that have been historically associated with vibriosis in the state.

This plan applies to all oyster growing operations throughout the state from June 15 through September 15.

Additional requirements may be found in the National Shellfish Sanitation Program (NSSP) Model Ordinance at: <http://www.issc.org/2009GuidePDF.aspx>.

**Water Temperature Monitoring During the Vibrio Season.**

The period between June 15 and September 15 is considered the Vibrio season. All active oyster growing operations must take water temperatures at the top of the suspended aquaculture gear **weekly**. Water temperatures must be taken at or about 5 p.m., when water temperatures are typically the warmest.

The oyster growing operation must

- Maintain a permanent monitoring record that includes the date, time, specific location (depths), and temperature readings.
- No later than the last day of each month, average the weekly water temperatures and record this information on the permanent record.
- Keep water temperature monitoring records at the growing site and make these records available to ADEC on request.
- Submit a copy of the permanent record of weekly and monthly average temperatures to ADEC by October 1.

If the monthly average water temperatures at the top of suspended gear exceeds 60°F (15.6°C), the oyster growing operation must

- immediately notify the department by phone, fax, or email;
- begin measuring the water temperature **daily**; and
- implement control measures outlined in this plan.

Additional water temperature data taken or collected by the operator at different locations and depths for research purposes will not affect the area status, as long as there is no direct correlation to the product being harvested. This data must be provided to ADEC on request.

**CONTROL MEASURES**

If the monthly average water temperatures calculated is at or above 60°F (15.6°C), oyster growing operations must implement the following control measures:

**Drop Gear**

An oyster grower must lower his/her gear below the thermocline. Additionally,

- the oysters must remain at the thermocline for at least 10 days before harvesting;
- the grower must measure and record the temperature at the thermocline daily to ensure the temperature is maintained below 60°F (15.6°C);
- at harvest, the grower must record in the harvest records the date of harvest and the corresponding date the oyster gear was lowered below the thermocline. These records must be made available to ADEC on request.

If a grower does not have the option to lower his gear during the warm months because the growing area is shallow and does not have a thermocline, the grower must **suspend** any harvesting until the average monthly water temperature falls below 60°F (15.6°C).

**Water Temperature Monitoring during the Non-Vibrio Season**

The period between October and May is considered the non-vibrio season. Historically, shellfish growing water temperatures during these months are well below 60°F. Some areas in south central Alaska and the gulf to include Kachemak Bay East, Prince William Sound, Yakutat and Angoon in South East Alaska may even see freezing surface waters. Harvesting of oysters is very limited to only a few months during the time. Water temperature is not monitored during the non-vibrio season.

**Control Harvest to Refrigeration Temperature During the Vibrio Season**

Shellstock must be placed under temperature control within five hours of harvest.

**Control Harvest to Refrigeration Temperature During the Non Vibrio Season**

Shellstock must be placed under temperature control following the Harvester's Time to Temperature Control Matrix provided in Section II chapter VIII of the 2013 NSSP MO page 72 shown here:

Action Level	Average Monthly Maximum Air Temperature	Maximum Hours from Exposure to Temperature Control
Level 1	<50°F (10°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 (>27 °C)	12 hours

Additional requirements and information may be found at:

- [http://www.issc.org/client\\_resources/time%20temperature/time%20temperature%20guidance%20document%2004-17-2012.pdf](http://www.issc.org/client_resources/time%20temperature/time%20temperature%20guidance%20document%2004-17-2012.pdf) ; and

- [http://www.issc.org/client\\_resources/time%20temperature/time%20temperature%20mo%20changes%20april%2017,%202012.pdf](http://www.issc.org/client_resources/time%20temperature/time%20temperature%20mo%20changes%20april%2017,%202012.pdf)

Temperature control is defined as the management of the environmental temperature of shellstock by means of ice, mechanical refrigeration or other approved means which is capable of lowering and maintaining the temperature of the shellstock at an ambient temperature of 45°F (7.5 °C) or less.

For the purpose of harvest time to temperature control, time begins once the first shellstock harvested is no longer submerged.

The original dealer must cool oysters to an internal temperature of 50°F (10°C) or below within 10 hours or less after placement into refrigeration during periods when the risk of *Vibrio parahaemolyticus* illness is reasonably likely to occur.

The dealer's HACCP plan shall include controls necessary to ensure, document and verify that the internal temperature of oysters has reached 50°F (10°C) or below within 10 hours or less of being placed into refrigeration.

**Vp ILLNESS OUTBREAKS**

In the event that a shellfish growing area is implicated in a *Vp* illness outbreak consisting of one or more individuals, ADEC will immediately take actions under the NSSP to order the recall of shellfish products because of public health concerns or close affected areas.