



VIBRIO PARAHAEMOLYTICUS TERIM CONTROL PLAN

STATE OF ALASKA DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
FOOD SAFETY AND SANITATION
PROGRAM

2018

State of Alaska
Department of Environmental Conservation
Division of Environmental Health – Food Safety & Sanitation
***Vibrio parahaemolyticus* Control Plan**

Purpose and Scope

This *Vibrio parahaemolyticus* (*Vp*) Control Plan is implemented in accordance with the [National Shellfish Sanitation Plan Model Ordinance \(NSSP MO\)](#) Section II Chapter II @.07 (adopted by reference at 18 AAC 34 under the authority of AS 17.20.005).

The goal of this plan is to reduce the probability of occurrence of *Vp* illness during periods that have been historically associated with illness and is part of a comprehensive program that includes all time and temperature requirements contained in the NSSP MO. The plan is based on the Alaska Department of Environmental Conservation (ADEC) *Vp* Risk Evaluation.

The plan outlines actions that the ADEC and *all active oyster growing, harvesting, and dealer operations* take from **June 15 through September 15**, the time period when, historically, water temperatures of classified growing areas in Alaska have exceeded 60°F, a water temperature that has been associated with confirmed *Vp* illnesses in Alaska in the [past](#) and is representative of harvesting conditions that prompt the need for a control plan. The plan also describes response activities relating to the risk management of shellfish-related illnesses associated with *Vp*, in accordance with NSSP MO Section II Chapter II @.02.

For the remainder of the year when this plan is not in effect, September 16 through June 14, control of temperature to harvest must be accomplished as specified in the NSSP MO Section II Chapter VIII.

Additional requirements and resources may be found at:

- http://dec.alaska.gov/eh/fss/seafood/Shellfish_Home.html
- <https://www.fda.gov/downloads/Food/GuidanceRegulation/FederalStateFoodPrograms/UCM505093.pdf>
- <http://www.issc.org/vibrio-specific-information>

CONTROL MEASURES

This plan calls for three control measures:

- 1. Water Temperature Monitoring**
- 2. Control of Time from Harvest to Temperature Control**
- 3. Control of Time and Internal Temperature After Temperature Control**

Trigger to Implement Control Measures

The sole trigger for plan implementation is the time period **June 15 through September 15**.

**Vp Control Measures
June 15 – September 15**

1. Water Temperature & Salinity Monitoring

- Weekly monitoring
- If a weekly temperature $\geq 60^{\circ}\text{F}$, notify DEC, monitor daily, and either stop harvest & lower gear or shorten time from harvest to temp control

3. Time & Internal Temp after Refrigeration (Original Dealer)

- Internal temperature $\leq 50^{\circ}\text{F}$
- Within 10 hours after temperature control

2. Time from Harvest to Temp Control

- Within 5 hrs after first shellstock harvested, if temp is $\leq 60^{\circ}\text{F}$; or
- Within 3 hrs, if temp is $\geq 60^{\circ}\text{F}$; or
- Within 1 hr, if temp is $\geq 68^{\circ}\text{F}$

1. Water Temperature & Salinity Monitoring

A. The grower must

- At least **once each 7 days** at or about 5 p.m., or when water temperatures are typically the warmest¹, measure² the water temperature and salinity (if able to measure) at the top of the suspended aquaculture gear and
- document the date, time, specific location (depths), temperature and salinity (if able to measure) for each measurement on a monitoring record that is kept at the growing site and, during the season, made the data available to ADEC on request; and
- Log into the Shellfish Portal and enter the information collected to include temperature and salinity for the growing area.

B. If the weekly water temperature **at the top of suspended gear** is $\geq 60^{\circ}\text{ F}$ (15.6° C), the grower must

- immediately notify the department by phone, fax, or email;
- **daily** at or about 5 p.m., or when water temperatures are typically the warmest, measure the water temperature at the top of the suspended aquaculture gear;
- record on a monitoring record (that is kept at the growing site) the date, time, specific location (depth), and temperature value for each measurement and, during the season, make the data available to ADEC on request; and
- Log into the Shellfish Portal and enter the information collected for the daily temperature and salinity, and to include comments

C. In addition to implementing daily monitoring, the grower must either

- stop harvest and lower the aquaculture gear below the thermocline for at least 10 days before harvesting; or
- follow the time temperature control parameters below:
 - If the water or ambient air temperature is $\geq 68^{\circ}\text{ F}$ at the time of harvest, cool the shellstock within **1 hour** after the first shellstock harvested is no longer submerged; or
 - If the water or ambient air temperature is $\geq 60^{\circ}\text{ F}$ and not more than $\leq 67^{\circ}\text{ F}$ at the time of harvest, cool the shellstock within **3 hours** after the first shellstock harvested is no longer submerged.

¹ A grower may measure and record additional water temperature and salinity data at different locations and depths for research purposes and that data will not affect the area status or trigger controls described in this plan, as long as there is no direct correlation to the product being harvested. However, the grower must provide the data to ADEC on request.

² Growers must use a properly calibrated thermometer to measure water temperature. Guidance detailing how to calibrate a thermometer and examples of calibration records are at:

- https://dec.alaska.gov/eh/fss/Food/AMC/AMC_Posters/calibrate_thermo.pdf
- http://dec.alaska.gov/eh/fss/Food/AMC/AMC_Logs/log_thermometer_calibration.pdf

- D. A grower may raise gear or resume following Vp Time/Temperature Controls in (2), and return to **weekly** water temperature monitoring after **10 consecutive** water temperature values (taken once each day as described above) show temperatures **≤ 59° F**.

2. Control Time from Harvest to Temperature Control

- A. The harvester must place shellstock under temperature control³ within **5 hours** after the first shellstock harvested is no longer submerged; and
- B. For each lot of shellstock harvested,
- Record the time and air temperature when the first shellstock harvested is no longer submerged; and
 - Record the time and temperature of shellstock when placed into under temperature control.

3. Control Time/ Internal Temperature after Refrigeration (Original Dealer)

- A. The original dealer must take actions in accordance with the firm's HACCP plan, which must include controls, monitoring, and verification procedures to ensure that the internal temperature of oysters has reached **<50°F (10°C)** within **10 hours⁴** of being placed under refrigeration; and
- B. For each lot received,
- Record the time and air temperature at time of packing; and
 - Record the time and temperature of shellstock at time of shipping⁵.

Summary of Changes:

2016 – plan reformatted, rewritten, clarified requirements

2017 – plan clarified and revised to allow option of shortened temperature control from harvest when gear is not lowered, provide additional guidance links, clarify record keeping requirements

2018 – Vp risk management section revised to remove references to number of illnesses per 100,000 servings due to Alaska's overall low volume of production. Addition of the Shellfish Portal where Operators can enter information on line for the control of Vp to include temperature and salinity.

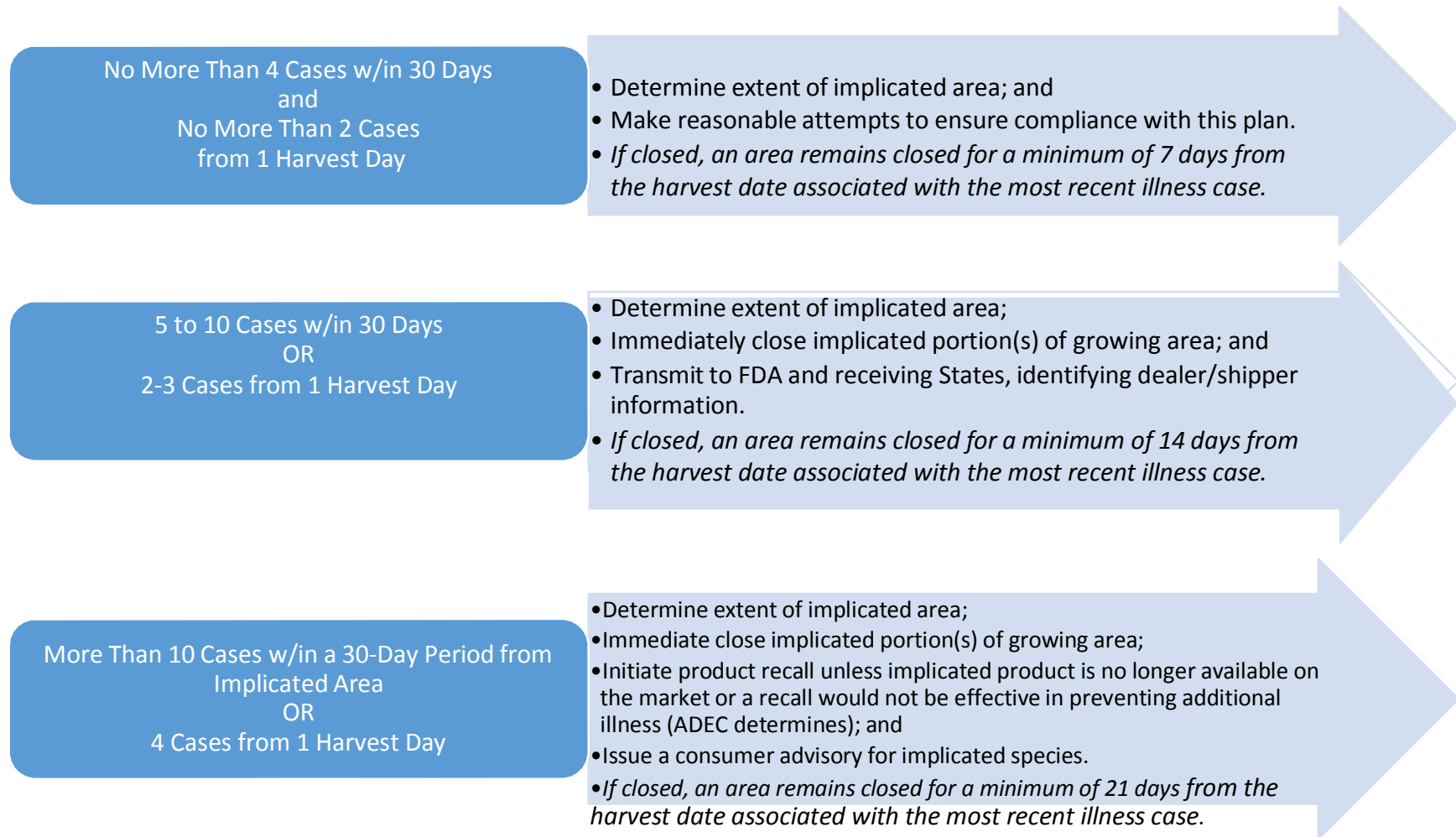
³ Temperature control means the management of the environmental temperature of shellstock by means of ice, mechanical refrigeration or other approved means which is capable of lowering and maintaining the temperature of the shellstock at an ambient temperature of 45°F (7.5 °C) or less.

⁴ Per NSSP MO Sec II Ch II @.07(B)(4)(c)

⁵ The time and temperature of the shellstock at time of shipping is documented in the transportation record per the NSSP MO Sec II Ch IX .04 and .05

Vp ILLNESS RISK MANAGEMENT

After conducting an investigation to determine whether an epidemiological association exists between a Vp illness associated with consumption of shellfish harvested from a shellfish growing area and the illness was not related to post-harvesting contamination or mishandling, ADEC will take action in accordance with NSSP MO Sec II Ch II @.02ⁱ as described below:



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ⁱ According to [ADFG Aquatic Farming 2015 annual report](#), Pacific oyster production for aquatic farm operations during that year was 1.17 million oysters sold.