



MEMORANDUM

DATE: June 18, 2012

TO: Division of Shellfish Sanitation Staff

FROM: Julie Henderson, Plant Program Manager
Division of Shellfish Sanitation 

THROUGH: Robert E. Croonenberghs, PhD, Director
Division of Shellfish Sanitation 

SUBJECT: Plants - Procedure – Shellstock Oyster Ice-slurry Method

Purpose

Shellfish dealers who have a current Certificate of Inspection may implement an ice-slurry method in order to comply with Virginia's *Vibrio* Control Plan requirement to cool shellstock oysters to 55°F (12.8°C) or below within 5 hours or less after placement into refrigeration. This policy memo's purpose is to provide guidance to the Virginia Department of Health, Division of Shellfish Sanitation Field Directors and Shellfish Specialists for the use of an ice-slurry method.

Discussion

As required by the National Shellfish Sanitation Program (NSSP), Guide for the Control of Molluscan Shellfish Model Ordinance (M.O.), the Virginia Department of Health, Division of Shellfish Sanitation (DSS) conducted a *Vibrio* risk evaluation in. This risk evaluation determined that the risk of both *Vibrio vulnificus* and *Vibrio parahaemolyticus* illness from consumption of oysters harvested from a Virginia growing area is reasonably likely to occur. DSS developed and implemented a *Vibrio* Control Plan which included the requirement that the original dealer must cool shellstock oysters to an internal temperature of 55°F (12.8°C) or below within 5 hours or less after placement into refrigeration. Placing shellstock oysters in an ice-slurry to rapidly cool will enable dealers to meet this requirement. This process is acceptable if certain processing parameters are met.

Policy

Certified dealers who wish to use an ice-slurry method to cool shellstock oysters must apply for approval with DSS prior to implementation. The following minimum requirements must be met in order to receive approval:

1. **Written Standard Operating Plan (SOP).**

The SOP must include, at a minimum:

- a) a written description with a stated purpose of the ice-slurry method;
- b) the equipment used; the ice source;
- c) shellstock handling process; and
- d) the verification methods used to determine that the internal temperature of the oysters reached 55°F (12.8°C) or below within 5 hours or less of being placed into refrigeration.

Minimum sanitation control requirements:

- a) Shellstock must be washed to remove excessive amounts of mud before being placed into the ice-slurry.
- b) Water provided must be from either a potable water supply or a growing area in the approved classification. Ice must be made from potable water onsite or from an approved source.
- c) Shellstock tanks and related plumbing shall be fabricated from safe materials and tanks shall be constructed to be easily accessible or cleaning and inspection and to be self draining. The surface of the tanks must be constructed in a manner and with materials that can be cleaned, and sanitized, maintained or replaced in a manner to prevent contamination of the shellstock and must be fabricated from food grade materials. The surfaces must be smooth including the seams, corners and edges.
- d) Tanks shall be washed, rinsed and sanitized prior to use and at the end of each day. Tanks must be completely drained and washed, rinsed and sanitized at three-hour intervals when in continuous use.

2. **DSS Field Office Review and Inspection.**

A Shellfish Specialist will conduct an onsite evaluation of the tanks or containers that will be used and discuss the proposed ice slurry method. The evaluation documented on the NSSP Standardized Shellfish Processing Inspection Form will then be submitted with a proposed SOP to the Central Office for review.

3. **DSS Central Office Review.**

The Plant Program Manager will review the proposed SOP and Field Office evaluation to determine whether the process meets DSS and NSSP requirements. The Central Office will accept, deny or request modifications to the SOP and notify the Field Office. The Shellfish Specialist will verify the implementation of the plan on site.

Example Ice Slurry Method Standard Operating Procedure (SOP)

Virginia Oyster Company
100 Clam Shell Drive
Bivalve, VA 00000
(804) 000-0000
Certification # VA 00-SS

Virginia Oyster Company will use an ice-slurry method in order to comply with the Virginia Division of Shellfish Sanitation's *Vibrio* Control Plan which includes the requirement that original dealers must cool shellstock oysters to an internal temperature of 55°F (12.8°C) or below within 5 hours or less after placement into refrigeration. Placing shellstock oysters in an ice-slurry to rapidly cool will enable Virginia Oyster Company to ship the same day of harvest. The ice-slurry method will not be the only method used to cool the shellstock oysters.

The fiberglass tank is smooth and easily cleanable as well as self draining. The ice slurry will be made up of water provided from Growing Area 62 which is in open status and ice made on site at the plant. We will wash and grade the shellstock oysters and place them in new onion sacks prior to placing them in the ice slurry. The oysters will be placed into the tank for no longer than 20 minutes and upon removal an internal temperature will be taken with a calibrated metal stem thermometer. The internal temperature will be documented and if the temperature reached is 55°F the shellstock will be placed in to the cooler and allowed to be shipped.

1) Safety of Water

Controls and Monitoring:

- a) All water used for the ice slurry is from an approved growing area in the open status. The Division of Shellfish Sanitation (DSS) will notify the company if the growing areas status changes per request of Virginia Oyster Company. The company has provided DSS with a current email address to be used for notification. **Monitoring Frequency: Annually.**
- b) The piping system used in the plant for the ice slurry method was designed and installed by a licensed plumbing contractor and meets current building code. The water system in the plant was designed and installed by a licensed plumber and meets current building codes. The piping system used for the ice slurry does not cross connect with the water system in the plant. All modifications to the plumbing system will be completed by a licensed plumber and will be inspected to ensure conformance with local building codes. **Monitoring Frequency: When plumbing is installed or modified.**
- c) All water valves and fixtures have backflow or backpressure prevention controls. Water valves and fixtures are inspected for the presence of these controls and for possible back flow prevention. **Monitoring Frequency: Daily before processing.**

Corrections:

- a) In the event of a growing area classification change, the company will no longer use the growing area water supply and will use water from the plant water supply. The water supply is from a well located on premises. The well was installed by a licensed plumber and was permitted and inspected by the local Health Department.
- b) Corrections will be made to the plumbing system, if necessary. To correct problems.

2) Condition and cleanliness of food contact surfaces

Controls and Monitoring:

- a) Food contact surfaces are readily cleanable. A designated employee inspects the ice slurry tank for cracks, overlapping joints, mineral scale etc. that are not possible to adequately clean and sanitize. **Monitoring Frequency: Daily before processing.**
- b) Food contact surfaces are cleaned and sanitized:
 - 1) Before operations begin, the tank is rinsed with cold water and sanitized. A designated employee inspects the tank to determine if it is clean and sanitized properly. **Monitoring Frequency: Daily before processing.**
 - 2) Every 3 hours, the tanks are drained and washed, rinsed and sanitized. A designated employee checks sanitizer before use and inspects the tank to determine if it is clean and sanitized properly. **Monitoring Frequency: Every 3 hours during continuous processing.**
 - 3) At the end of daily operations, the tanks are drained and washed, rinsed and sanitized. A designated employee checks sanitizer before use and inspects the tanks to determine if they are clean and sanitized properly. **Monitoring Frequency: Daily after processing.**

Daily Sanitation Control Record for Shellstock Cooling in Ice-slurry Tank

Date: _____

Dealer: _____

Certification No.: VA _____

Address: _____

Sanitation Area	Pre-Op Time:	3 hour Time:	Post-Op Time:	Comments
Safety of Water				
Backflow prevention devices in place				
Condition and Cleanliness of Food Contact Surfaces				
Equipment cleaned and sanitized				