Appendix I

Seafood Waste Size Sampling and Analysis Protocol

Seafood Waste Size Sampling and Analysis Protocol

Purpose: The purpose of the sampling and analysis is to determine if the seafood waste is in compliance with the permit limitation that the permittee must reduce the size of all solid seafood processing wastes to 0.5 inch (1.27 cm) or smaller in any dimension prior to discharge.

Method: The following is the DEC approved method for determining if seafood waste has been treated to meet the 0.5 inch (1.27 cm) in any dimension waste size limitation. Other methods may be approved on a case-by-case basis.

Equipment List

a. Five gallon buckets (quantity two).
b. Forceps
c. Latex or Nitrile gloves
d. Two Classifier-screen sieves, 0.5 inch and 0.25 inch mesh for use with a standard five gallon bucket, search web browser for “classifier screens” or “classifier sieve”.
e. Light box

Single classifier screens in bucket

Sample Collection:

1) If the vessel's outfall / discharge pipe does not have a sample port at least 2.0 inches or greater, the permittee must install an appropriately sized sample port on the underside of the seafood outfall / discharge pipe in a convenient location for collecting discharge samples into a 5-gallon bucket. The sampling port must have a valve that opens to the full position and does not obstruct the flow.
2) Don latex or nitrile gloves. When the seafood waste treatment grinders (or other treatment) are operating and the seafood processing lines are operating at normal to near total capacity, purge the sampling port for 60 seconds into a 5-gallon bucket or buckets and re-introduce the waste into the waste conveyance system. After purging, collect a five gallon bucket full of seafood processing waste and wastewater. For easy handling, a full bucket is defined as between 1-2 inches from the top or rim.
3) Near a scupper or drain connected to the waste conveyance system, place two screens on top of a 5 gallon bucket (see the screen specifications in the equipment list). Place a 0.25 inch mesh screen on the bucket first and then place the 0.5 inch mesh screen on top of the 0.25 inch screen. Screens must be 1.5 inches apart to allow for the accumulation of waste passing through the upper screen.
4) Pour the full five gallons of seafood processing waste through the two screen combination. If small particles are building up in one spot, turn the bucket of seafood waste being poured onto the mesh sieves so that processing waste can pass can continue to be screened.
5) Add the contents of the top larger mesh screen (0.5 inch size screen) to the measurement collection beaker. Because seafood waste is pliable the particles tend to bias toward a smaller size as they fold and fall through the mesh. A pair of forceps may be used to help with collection (see the equipment list). Repeat as necessary.
6) Separate the 0.25 inch screen once all of the pieces have passed through the 0.5 inch screen and examine any waste that accumulated on the 0.25 inch screen. Once again look through the particles retained on the 0.25 inch screen and add those that appear larger than 0.5 inch to the collection beaker.
7) After sampling is completed, discharge wastewater and the remaining solids to the waste conveyance system.

Sample Analysis

1) Take the sample collection beaker to a well-lit working area, or light box suggested in the equipment list, and measure the greatest dimension of each piece of seafood waste to the nearest 1/16 inch.
2) Record the number of seafood waste pieces that exceeded the 0.5 inch in the largest dimension on the Seafood Waste Size and Waste Conveyance Inspection Log (Attachment B).
3) When ten or more seafood processing waste particles exceed the maximum size requirement in a 5-gallon bucket of wastewater, corrective action (e.g., replacement of or sharpening the grinder plates, pump speed adjustment, size of cutting plate reduced from 0.5 inch down to 0.375 inch, addition of audio grinder, etc.) is required within seven days and must be noted on the log.
4) Once a month photographs are required to be taken of the seafood waste inspection procedure, as a data collection requirement. Input unique picture numbers into the inspection log to document the photographic record.