



OPERATING PRACTICE FOR TUNA PROCESSING

SCOPE

This Operating Practice for Tuna Processing is a specific requirement and used as guidance for quality control of tuna processing including that of in cans, glass jars, retort pouches and frozen tuna loins. Details cover the practices and controls necessary to perform at each processing step from fish receipt, handling and storage, thawing, butchering, staging and racking, precooking, cooling the pre-cooked fish, and loin cleaning. Such specific controls are to prevent histamine formation during processing. The conduct of tuna processing approval, Department of Fisheries will use this requirement together with the Operating Practice for Fishery Products in Hermetically Sealed Containers depending on the product type being approved.

REQUIREMENTS

1. Receipt, Examination, Handling and Storage of Raw Fish

- 1.1 Each delivered shipment of raw or frozen tuna shall be inspected to determine its condition and quality, such as, fish species, appearance, temperature and freshness, and etc. This examination results shall be recorded. Each lot of fish shall be graded. Unacceptable quality of fish, e.g. smashed, sours and decomposed, shall be removed from the area.
- 1.2 On receipt fish shall be tested for chemical parameters related to health and safety of consumers, for examples, mercury, histamine, and etc. Sampling frequency shall be based on the history of fish quality control and the likelihood of its occurrence.
- 1.3 Fish which are in transit to the cold storage shall be protected from the elements by appropriate covers on the shipping containers and must be moved to cold storage as quickly as possible in order to keep surface thawing to a minimum.

2. Thawing

A thawed fish shall have a maximum internal temperature of 5°C. This includes fish that is kept for the next processing.

3. Butchering, Staging and Racking

- 3.1 The time between end of thawing (from the time thawing water is drained out) and the end of butchering (when fish is racking) must not exceed 2 hrs for fish under 5 kg in weight, or 4 hrs for fish 5 kg or greater in weight.
- 3.2 Fish shall be rinsed with safe, sanitary water before butchering.
- 3.3 Fish that is butchered all viscera shall be removed and the belly cavities be thoroughly washed. Fish shall be inspected using sensory evaluation techniques for defects by well-



trained and qualified personnel. Where fish of unacceptable quality, e.g. decomposed and rancid, are found, they shall be segregated and not used for processing.

- 3.4 The time from which fish are kept at the staging step to when the racks are placed in cooker and the steam is on must not exceed 2 hrs for fish less than 5 kg in weight or 4 hrs for fish 5 kg or more in weight. If fish temperature is found to be more than 5°C, the fish shall be cooked in 1 hr.

4. Precooking

Cooking times and temperatures shall be adequate to remove excess fish oils and body fluids and to make the loins easy to separate from the backbone.

5. Cooling the pre-cooked Fish

The precooked fish shall be cooled for a period sufficient to allow the loins to be handled. The allowable time period from the steam is turned off to when the cleaning ends shall not exceed 8 hrs for fish less than 10 kg in weight or 10 hrs for fish 10 kg or more in weight.

6. Loin Cleaning

- 6.1 Material detected during cleaning or during loin inspection shall be removed from the tuna pack.
- 6.2 Care shall be taken to ensure that cleaned edible product is not contaminated with offal.
- 6.3 Containers used to transport finished material shall be washed after each use. The table shall be cleaned and sanitized at least once during a 4-hour period at the end of each work shift.
- 6.4 The time between cleaning ends and fish loins is packed in a can shall not exceed 1 hr.