



TUVALU VESSEL STANDARDS



A handwritten signature in blue ink, appearing to read 'Sam Finikaso', written over a horizontal line.

Endorsed by

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Definitions

Audit	Systematic and independent examination to determine whether activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives
Clean seawater	Natural, artificial or purified or brackish water that does not contain micro-organisms, harmful substances or toxic marine plankton in quantities capable of directly or indirectly affecting the health quality of food.
Clean water	Clean seawater and fresh water of similar quality.
Competent Authority	The central authority of the country of origin or exporting country competent for the organisation of official controls or any other authority to which competence has been conferred.
Container	Includes any box, bag, can, carton, crate, jar, wrapper, packaging material used for packing fish but does not include shipping containers.
Contaminant	Any biological or chemical agent, foreign matter or other substances not intentionally added to food that may compromise food safety or suitability.
Contamination	The presence or introduction of a hazard.
Control (noun)	The state wherein correct procedures are being followed and criteria are being met.
Control (verb)	To take all necessary actions to ensure and maintain compliance with criteria established in a HACCP plan or support programme.
Corrective Action	Any action to be taken when the results of monitoring at the Critical Control Point indicate a loss of compliance with criteria established in a HACCP plan, support programme or any other approved programme.
Critical Control Point (CCP)	A step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level
Critical Limit	A criterion, which separates acceptability from unacceptability.
Decomposition	The deterioration of fish, shellfish and their products including texture breakdown and causing a persistent and distinct objectionable odour or flavour.
Establishment	Any unit of a food business.
Factory vessel	Any vessel on board which fishery products undergo one or more of the following operations followed by wrapping or packaging and, if necessary, chilling or freezing: filleting, slicing, skinning, shelling, shucking, mincing or processing.
Fish	Any aquatic animal, whether piscine or not, and includes molluscs, crustacean, coral, sponge, holothurian (beche-de-mer) or other echinoderm, turtle and marine mammal, and includes their eggs, spawn, spat and juvenile stages.

Fishery Products	All sea water or freshwater animals (except for live bivalve molluscs, live echinoderms, live tunicates and live marine gastropods, and all mammals, reptiles and frogs) whether wild or farmed and including all edible forms, parts and products of such.
Fishing Vessel	Vessels which bleed, head, gut or remove fins of fish into a chilled or frozen state
Flow diagram	A systematic representation of the sequence of steps or operations used in the production or manufacture of a particular food item.
Food safety	Assurance that food will not cause harm to the consumer when it is prepared or eaten according to its intended use.
Foreign matter	Any organic or inorganic substance that is not permitted in these standards, not indigenous to fish, detrimentally effects the quality of the fish or fitness for human consumption and is included in or adheres to any part of the fish.
Freezer vessel	Any vessel on board which freezing of fishery products is carried out, where appropriate after preparatory work such as bleeding, heading, gutting and removal of fins and, where necessary, followed by wrapping or packaging.
Fresh fishery products	Unprocessed fishery products, where whole or prepared, including products packaged under vacuum or in a modified atmosphere that have not undergone any treatment to ensure preservation other than chilling.
HACCP	Hazard Analysis Critical Control Point technique - a system that identifies, evaluates, and controls hazards that are significant for food safety.
HACCP Plan	A document prepared in accordance with the principles of HACCP as defined by Codex Alimentarius Commission to ensure control of hazards that are significant for food safety in the segment of the food chain under consideration.
Hazard	A biological, chemical or physical agent in, or condition of, food which has the potential to: a) Affect food safety; or b) Cause an adverse health effect.
Hazard Analysis	The process of collecting and evaluating information on hazards and conditions leading to their presence to decide which are significant for food safety and therefore should be addressed in the HACCP Plan.
Inspections	The examination of any aspect of feed, food, animal health and animal welfare in order to verify that such aspect(s) comply with the legal requirements of feed and food law.
Label	Any wording, tag, brand, symbol, picture, or other descriptive matter written, printed, stencilled, marked, embossed, impressed on, appearing on, attached to, or enclosed within any fish or fish product.

Lot	A quantity of fish of the same type produced under the same conditions during a particular time interval generally not exceeding 24 hours and from an identifiable processing line.
Monitor	The act of conducting a planned sequence of observations or measurements of control parameters to assess whether a CCP or other control point, is under control.
Packaging	The placing of one or more wrapped foodstuffs in a second container, and the latter container itself.
Potable water	Water meeting the minimum requirements laid down in Council Directive 2020/2184 on the quality of water intended for human consumption ¹
Prepared fishery products	Unprocessed fisheries products that have undergone an operation affecting their anatomical wholeness, such as gutting, heading, slicing, filleting, and chopping.
Processed products	Foodstuffs resulting from the processing of unprocessed products. These products may contain ingredients that are necessary for their manufacture or to give them specific characteristics.
Processing	Any action that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes.
Shall	Denotes a mandatory requirement.
Should	Denotes a recommended or advisory procedure.
Sound	In a state that will not contribute to contamination, directly or indirectly, of a food product
Suitable	Meeting the requirements of this standard and which will contribute to food safety
Support programme	A documented system that underpins or supports a recognised HACCP plan or a recognised hazard identification and analysis process (for example a good manufacturing or good hygiene practice (GMP or GHP) programme or schedule relating to cleaning, staff training, document management or other matters). Also known as pre-requisite programme, standard operating procedure (SOP), standard sanitary operating procedure (SSOP).
Unprocessed products	Foodstuffs that have not undergone processing, and includes products that have divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed.
Verification	Checking by examination and the consideration of objective evidence, whether specified requirements have been met.
Wrapping	The placing of foodstuff in a wrapper or container in direct contact with the foodstuff concerned, and the wrapper or container itself.

Abbreviations

CA	Competent Authority
CCP	Critical Control Point
CFP	Ciguatera Food Poisoning
EU	European Union
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis Critical Control Points
ppm	Parts per million
RSW	Refrigerated Sea Water

1 INTRODUCTION

This document is prepared by the Tuvalu Fisheries Department, being the sanitary Competent Authority responsible for the food safety conditions in exported fishery products.

Fishery sector operators wishing to export from Tuvalu, including Tuvalu operators of fishing and freezer vessels landing and transshipping in other regions, are required to comply with the requirements of the Food Safety Act 2008 (as amended) and the Food Safety (Fishery Products) Regulation 2022 (hereafter referred to as the Regulations). These documents set out the formal legal requirements applicable to a wide range of fishery sector related activities in the export supply chain.

However, the Tuvalu Competent Authority recognises that in some situations fishery sector operators require additional information and guidance to ensure the effective application of these requirements to ensure safe production of food. The Tuvalu Competent Authority therefore provides guidance to operators, to support operators in understanding the regulatory requirements and ensure their consistent interpretation.

These guidelines set out the advice of the Tuvalu Fisheries Department to operators of fishing and freezer vessels engaged in the export supply chain. They provide advice on the interpretation of the regulatory requirements in relation to the design, construction and operation of Tuvalu flagged fishing and freezer vessels.

It should be noted that the guidelines have no legal authority and are purely advisory. The Tuvalu Competent Authority reserves the right to alter the advice provided and offer alternative interpretations of legal measures at any times. Compliance with the guidelines does not guarantee that operators will meet legal requirements and operators should always refer to the relevant legislation.

2 SCOPE OF APPLICATION

The following vessels engaged in catching or transporting fish and fishery products for export shall be subject to sanitary controls under the Food Safety (Fishery Products) Regulations 2022.

1. Freezer vessel: a vessel on which the fishery products are frozen, if necessary, after preparation such as bleeding, heading, evisceration and fin removal, with these operations followed by packaging or packaging whenever necessary.
2. Factory vessel: a vessel on which fishery products are subjected to one or more of the following operations, followed by conditioning or packaging and, if necessary, refrigeration or freezing: filleting, cutting, skinning, peeling, chipping or processing.
3. Transport vessel: a vessel which carries fish in bulk via transshipment to another destination or port (commonly referred to as carrier or reefer vessels) excluding vessels carrying containerised products.

3 REQUIREMENTS FOR FISHING VESSELS

Vessel operators must ensure that:

1. All Vessels used to harvest fishery products from their natural environment, or to handle or process them after harvesting, must comply with the requirements laid down in Schedule 2 of the Regulations.
2. All Freezer Vessels used to harvest fishery products from their natural environment, or to handle or process them after harvesting must comply with the requirements laid down in Schedule 2 and 3 of the Regulations.
3. All factory Vessels used to harvest fishery products from their natural environment, or to handle or process them after harvesting must comply with the requirements laid down in Schedule 2, 3 and 4 of the Regulations.
4. Operations carried out on board vessels take place in accordance with the rules laid down below.

3.1 STRUCTURAL AND EQUIPMENT REQUIREMENTS

3.1.1 *Requirements for all vessels*

1. Vessels must be designed and constructed so as not to cause contamination of products with bilge water, sewage, smoke, fuel, oil, grease or other objectionable substances.
2. Surfaces that fishery products come into contact with must be suitable corrosion resistant material that is smooth and easy to clean. Surface coatings must be durable and non-toxic.
3. Equipment and material used for working on fishery products must be made of corrosion-resistant material that is easy to clean and disinfect.
4. When vessels have water intake for water used with fishery products, it must be situated in a position that avoid contamination of the water supply.
5. Holds or other parts of the vessel where fishery products are stored must:
 - i) be covered and self-draining
 - ii) be well insulated
 - iii) have provision for holding an acceptable quantity of ice or have alternative means of refrigeration
 - iv) not contain objects or products liable to damage or transmit harmful properties and abnormal characteristics to the food.
 - v) Must not be used for other purposes than the storing, cooling or freezing fish or fish products, as well as ice or brine used for such purposes.
6. The Regulations require that surfaces which come into contact with fish should be constructed of materials that are durable, corrosion resistant, non-absorbent and inert.
7. Whilst the use of wood is generally prohibited where it can come into contact with fish, the exposed decks of fishing vessels are permitted to be made of wood providing that the timber is kept clean, sound and well caulked.
8. All other equipment which comes into contact with fish should not be constructed of wood. This includes fish rooms, fish holds, tables, knives, implements for handling fish or ice, conveyors, boxes etc.

9. Washing of whole fish (including fish from which only the head, guts, gills and fins may have been removed), washing of equipment, or for the manufacture of ice to be used in contact with whole fish (including fish from which only the head, guts, gills and fins may have been removed), shall use only potable water or clean seawater.
10. Clean seawater must be obtained from sea areas which are outside regular shipping lanes, harbours and away from land-based sources of contamination.
11. Potable water or clean seawater shall comply with the parameters of given below.

Microbiological Parameters and Limits.

Parameter*	Volume of the sample in ml	Guide Level (GL)	Maximum Admissible Concentration (MAC)
Intestinal Enterococci	100	0	0 (number/100 ml)
<i>Escherichia coli</i>	100	0	0 (number/100 ml)

*Potable water samples should be collected from the port of intake.

12. Containers and equipment in contact with the fishery products must be made of or coated with a material that is waterproof, resistant to decay and corrosion, smooth and easy to clean and disinfect. When used they must be completely clean. Surface coatings must be durable and non-toxic.
13. When used, the section of vessels or the containers reserved for the storage of fishery product must be completely cleaned and, in particular, must not be capable of being contaminated by fuel used for propulsion or bilge water.
14. After the fishery products have been unloaded the containers, equipment and sections of vessel that are directly in contact with the fishery products must be cleaned with potable water or clean water.
15. As soon as they are taken on board, fishery products must be protected from contamination and from the effects of the sun or any other source of heat. When they are washed, water used must be either potable water or clean seawater complying with the parameters set out in point 5 above, so as not to impair their quality or wholesomeness.
16. Fishery products must be handled and stored in such a way as to prevent bruising. The use of spiked instruments shall be tolerated for the moving of large fish or fish that might injure the handler, provided the flesh of the products is not damaged.
17. Fishery products other than those kept alive must undergo chilling or freezing as soon as possible after landing.
18. Ice used to chill fishery products must be made from potable water or clean water.
19. Where fish are headed and/or gutted on board such operation must be carried out hygienically and products must be washed immediately and thoroughly with potable water or clean seawater. The viscera and parts, which may pose a threat to public health, must be removed and set apart from products intended for human consumption. Livers and roes intended for human consumption must be chilled or frozen.
20. Staff assigned to handling fishery products shall maintain a high standard of cleanliness for themselves and all outer clothing.
21. Hydraulic circuits shall be protected in such a way as to ensure no oil leakage can contaminate products.

22. The working decks, the equipment and the holds, tanks and containers shall be cleaned and disinfected after each time they are used. Control and monitoring for the presence of pests shall be carried out regularly.
23. Cleaning products, disinfectants, insecticides and all potentially toxic substances shall be stored in a secure store or cupboard physically separated from fish cartons and ship to shore containers. Their use must not present any risk of contamination of fishery products.
24. Ice for chilling of fishery products must be used in such a way and in such quantities, so that fishery products will attain the temperature of melting ice as quickly as possible. Ice must also be free of contamination.
25. Fishing vessels that use seawater to wash up and process shall do so in uncontaminated waters and whilst the vessel is moving in open waters.
26. Whole and gutted fresh fishery products may be transported and stored in cooled water on board vessels. They may also continue to be transported in cooled water after landing, and be transported from aquaculture establishments, until they arrive at the first establishment on land carrying out any activity other than transport or sorting.

3.1.2 *Requirements freezer vessels*

1. Freezer vessels must:

Have freezing equipment with sufficient capacity to lower the temperature rapidly so as to achieve a core temperature of not more than -18°C

- a. Freeze whole fish in brine intended for canning at -9°C or less
 - b. Have refrigeration equipment with sufficient capacity to maintain fishery products in the storage holds at not more than -18°C . Storage holds must be equipped with a temperature-recording device in a place where it can be easily read. The temperature sensor of the reader must be situated in the area where the temperature in the hold is the highest; and
 - c. Holds must be separated from the engine compartments and from the crew quarters by partitions which are sufficient to prevent any contamination of the stored fishery products. Holds and containers used for the storage of fishery products must ensure their preservation under satisfactory conditions of hygiene and, where necessary, ensure that melt water does not remain in contact with the products.
 - d. When brine-freezing, the brine shall not be a source of contamination.
2. Vessels designed and equipped to preserve fishery products for more than twenty-four hours must be equipped with holds, tanks or containers for the storage of fishery products as follows:
- Fresh fishery products must be maintained at a temperature approaching that of melting ice.
 - Frozen fishery products must be kept at a temperature of not more than -18°C in all parts of the product; however, whole frozen fish in brine intended for the manufacture of canned food may be kept at a temperature of not more than -9°C .

- Temperatures must be able to be maintained on a consistent basis.
3. Holds must be separated from the engine compartments and from the crew quarters by partitions which are sufficient to prevent any contamination of the stored fishery products.
 4. Holds and containers used for the storage of fishery products must ensure their preservation under satisfactory conditions of hygiene and, where necessary, ensure that melt water does not remain in contact with the products.
 5. In vessels equipped for chilling or freezing fishery products in tanks the system should be capable of achieving a uniform temperature throughout the tanks. Such devices must achieve a chilling rate that ensures that the mix of fish and clean seawater reaches not more than 3°C 6 hours after loading and not more than 0 °C after 16 hours and allow the monitoring and, where necessary, recording of temperatures.
 6. Tanks must be equipped with adequate seawater filling and drainage installations and must incorporate devices for achieving uniform temperature throughout the tanks;
 7. After each unloading the tank's circulation systems and containers must be completely emptied and thoroughly cleaned using potable or clean seawater and should only be re-filled with clean seawater or brine.
 8. The date and reference number of the tank must be clearly indicated on the temperature records. These must be kept and made available to the Competent Authority inspector.
 9. Dual use of fish wells is prohibited (i.e. in a single well, it is not allowed to store of fuel at some times, and store fish at other times).
 10. Use of a well for storage of either fuel or fish is permitted, subject to conditions as follows:
 - Wells should be numbered Port 1,2,3 etc and Starboard 1,2,3 etc and numbers should be indelibly marked on each well e.g. in paint
 - Operators should specify which wells will be used permanently for fish and which ones will be used permanently for fuel
 - Any changes should be communicated to the CA
 - These specifications should be expressed in a signed declaration to the CA in writing, with appropriate guarantees that only the indicated wells will be used for storage of fish.
 - Fuel valves should be sealed on wells specified for fish
 - Brine valves should be sealed on wells specified for fuel
 - Operator should provide evidence of maximum fuel storage capacity of vessel fuel tanks and of wells nominated for fuel storage
 - Records should be kept on board the vessel bunkering which indicate the volume of fuel loaded into each location. They should be provided to the CA on demand

3.1.3 Requirements for factory vessels

In addition to the requirements for all vessels and freezer vessels, factory vessels must have at least:

- a) A receiving area reserved for taking fishery products on board, designed to allow each successive catch to be separated. This area must be easy to clean and designed so as to protect the products from the sun or the elements and from any source of contamination.

- b) A hygienic system for conveying fishery products from the receiving area to the work area.
- c) Work areas that are large enough for the hygienic preparation and processing of fishery products, easy to clean and disinfect and designed and arranged in such a way as to prevent any contamination of the products.
- d) Storage areas for the finished products that are large enough and designed so that they are easy to clean. If a waste-processing unit operates on board, a separate hold must be designated for the storage of such waste.
- e) A place for storing packaging materials that is separate from the product preparation and processing areas.
- f) Special equipment for disposing waste or fishery products that are unfit for human consumption directly into the sea or, where circumstances so require, into a watertight tank reserved for that purpose. If waste is stored and processed on board with a view to its sanitation, separate areas must be allocated for that purpose.
- g) Hand-washing equipment for use by the staff engaged in handling exposed fishery products with taps designed to prevent the spread of contamination.
- h) Refrigeration equipment with sufficient capacity to maintain fishery products in the storage holds at not more than -18°C . Storage holds must be equipped with a temperature-recording device in a place where it can be easily read. The temperature sensor of the reader must be situated in the area where the temperature in the hold is the highest.

3.1.3.1 *Reefer vessels*

Reefer vessels transporting and/or storing frozen fishery products in bulk must have equipment with sufficient capacity to maintain fishery products in the storage holds at not more than -18°C . Storage holds must not be used for freezing.

3.2 HYGIENE REQUIREMENTS

1. When in use, the parts of vessels or containers set aside for the storage of fishery products must be kept clean and maintained in good repair and condition. In particular, they must not be contaminated by fuel or bilge water.
2. As soon as possible after they are taken on board, fishery products must be protected from contamination and from the effects of the sun or any other source of heat. They should be subjected to chilling or freezing without delay.
3. When they are washed, the water used must be either potable water or, where appropriate, clean water.
4. Fishery products must be handled and stored so as to prevent bruising. Handlers may use spiked instruments to move large fish or fish which might injure them, provided that the flesh of the products suffers no damage.
5. Ice and brines used to chill or freeze fishery products must be made from potable water or clean seawater.
6. Where fish are headed and/or gutted on board, such operations must be carried out hygienically as soon as possible after capture, and the products must be washed immediately and thoroughly with potable water or clean water. The viscera and parts that may constitute a danger to public health must be removed as soon as possible and kept apart from products intended for human consumption. Livers and roes intended for human consumption must be preserved under ice, at a temperature approaching that of melting ice, or be frozen.
7. Where freezing in brine of whole fish intended for canning is practised, a temperature of not more than -9°C must be achieved for the product. The brine must not be a source

of contamination for the fish. Even if it is subsequently frozen at a temperature of – 18 °C, the whole fish initially frozen in brine shall be destined only for canning. The brine must not be a source of contamination for the fish.

3.3 REQUIREMENTS DURING AND AFTER LANDING

Food business operators responsible for the unloading and landing of fishery products must:

1. Ensure that unloading and landing equipment that comes into contact with fishery products is constructed of material that is easy to clean and disinfect and maintained in a good state of repair and cleanliness; and
2. Avoid contamination of fishery products during unloading and landing, in particular by:
 - Carrying out unloading and landing operations rapidly.
 - Placing fishery products without delay in a protected environment at the temperature specified below:
 - Not use equipment and practices that cause unnecessary damage to the edible parts of the fishery products.

Frozen fishery products must be kept at a temperature of not more than – 18 °C in all parts of the product; however, whole fish initially frozen in brine intended for the manufacture of canned food may be kept at a temperature of not more than – 9 °C.

4 HEALTH STANDARDS FOR FISHERIES PRODUCTS

4.1 ORGANOLEPTIC PROPERTIES OF FISHERY PRODUCTS

Food business operators should carry out an organoleptic examination of fishery products. In particular, this examination must ensure that fishery products comply with the freshness criteria given below:

4.1.1 Organoleptic Sampling and Testing

Application. This section applies to white and blue fish as specified in EU Council Regulation No.2406/96 and in particular albacore and bigeye tuna in whole/gutted form.

	<i>Criteria</i>			
	Freshness Category			Not admitted (0)
	Extra (3)	A (2)	B (1)	
Skin	Bright pigmentation, bright shining iridescent colours; clear distinction between dorsal and central surfaces	Loss of lustre and shine; duller colours; less difference between dorsal and ventral areas	Dull; lustreless, insipid colours; skin creased when fish curved	Very dull pigmentation; skin coming away from flesh
Skin mucous	Aqueous, transparent	Slightly cloudy	Milky	Yellowish grey, opaque mucous
Consistency of flesh	Very firm, rigid	Fairly firm, rigid	Slightly soft	Soft, flaccid
Gill covers	Silvery	Silvery, slightly red or brown	Brownish and extensive seepage of blood from vessels	Yellowish
Eyes	Convex, bulging; blue-black bright pupil, transparent eyelid	Convex and Slightly sunken; dark pupil; slightly opalescent cornea	Flat, burred pupil; blood seepage around the eye	Concave in the centre; grey pupil; milky cornea
Gills	Uniformly dark red to purple. No mucous	Less bright colour, paler at edges. Transparent mucous	Becoming thicker; discoloured opaque mucous	Yellowish; milky mucous
Smell of Gills	Fresh seaweed; pungent; iodine	No smell of seaweed, neutral smell	Slightly sulphurous, fatty smell, rancid bacon cuttings or rotten fruit	Rotten sour

Operators shall develop a sampling plan to check the relevant species/products prior to export and demonstrate compliance with this requirement. (Refer to Annex 1 for Checklist).

Once the freshness grading has been determined the operator shall label this clearly and indelibly in print of not less than 5 cm on labels affixed to the lot being exported.

4.2 SAMPLING AND TESTING FOR OWN CHECKS BY OPERATORS OF TUNA FREEZER VESSELS

Operators of freezer vessels should undertake periodic monitoring of the levels of histamine and heavy metals and environmental contaminants in the muscle of the fish, to ensure that control systems for these hazards are effective.

Samples of each species concerned should be collected from each vessel at least two times per year.

Samples should be collected from frozen fish at the time of discharge or transhipment

4.2.1 *Sampling procedures*

Samples should be selected as follows:

- In the case of skipjack select 9 whole fish
- In the case of yellowfin tuna selected 9 x 1kg samples, each cut from a separate fish
- In the case of bigeye tuna select 9 x 1kg samples, each cut from a separate fish

Within each species, each fish should come from a different well (nominally different days catch)

Weight of YFT and BET fish providing the sample should be measured before cutting sample.

Cutting fish on deck requires additional tools (e.g. electrical hand saw)

For YFT and BET the sample should be cut from the centre section

Fish should be packed and coded recording the well number or origin on field sample data sheet

Before departing the vessel, field data sample data sheet should record the date and location of catch from the catch record (corresponding to the well number).

4.2.2 *Shore based sample preparation*

Samples for analysis should be cut from the samples taken on the vessel and prepared using a bandsaw or hand-held electrical saw

Samples for analysis should be taken as follows, from each species:

- 9 samples (min 200g each) for histamine (one from each fish)

In addition, if the fish is to be used for testing for environmental contaminants, the following samples should be taken from the fish selected:

- 3 sample (min 200g) for Mercury (Hg) (randomly selected from the 9)
- 3 Sample (min 200g) for Cadmium (Cd) (randomly selected from the 9)
- 3 sample (min 200g) for Lead (Pb) (randomly selected from the 9)
- 1 sample (min 200g) for environmental contaminants (randomly selected from the 9)

In each case duplicate samples should be taken, labelled and stored.

Coding of labels for the laboratory should allow identification of vessel, species, sampling date

Sample data record sheets should then be completed for each sample, as follows.

Sample no./code				
Date sample taken				
Sampling officer				
Vessel from which taken				
Location of vessel at time of sampling				
Cold store or well number				
Operator batch code (if any)				
Species of sample				
Nature of sample taken (fresh/frozen)				
Quantity of sample taken				
Sample treatment/ preparation (if any)				
Lab to which submitted				
Date received by Lab				
Tests requested				
Date test results received				
Additional data for heavy metals testing				
Date of catching				
Location of catch				
Weight of fish from which sample is taken				
Additional data for histamine samples:				
Date of freezing				

Laboratory testing

Samples should be analysed in a laboratory accredited to standard ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories. The test methodologies and analytes should be within the scope of the accreditation.

Testing methods should comply with:

For histamine:

Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs:

Reference method for histamine should follow EN ISO 19343

For heavy metals:

Commission Regulation (EC) No 333/2007 of 28 March 2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs	Methods adopted should meet the performance criteria established in Table 5 of the Annex to the above regulation.
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5 Compositional requirements

A batch will be rejected when it fails to meet the acceptance criteria given below.

In the case of non-compliant results, the company must inform the Competent Authority Inspector and communicate sampling details and a copy of the certificate of analysis.

5.1 HISTAMINE

The following criteria are in line with the European Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs.

Out of 9 samples:

- no sample should exceed M= 200mg/kg histamine
- two samples may fall between 100 mg/kg and 200 mg/kg histamine
- mean value should be less than 100 mg/kg histamine

5.2 HEAVY METALS

5.2.1 Mercury

Regulation (EC) 2023/915 sets the maximum levels of contaminants in food.

Analysis for mercury is performed on a homogenised mixture of the sample.

Product (mg/kg)	MRL Tolerance	Method of analysis
Other species not listed below	1.0	LOD = three-tenths of MRL LOQ ≤ one fifth of the ML
Bonito (<i>Sarda sarda</i>) Escolar (<i>Lepidocybium flavobrunneum</i>) Marlin (<i>Makaira</i> species) Plain bonito (<i>Orcynopsis unicolor</i>) Sail fish (<i>Istiophorus</i> species) Tuna (<i>Thunnus</i> species, <i>Euthynnus</i> species, <i>Katsuwonus pelamis</i>) Shark (all species) Swordfish (<i>Xiphias gladius</i>)	0.5	LOD = three-tenths of MRL ≤ one fifth of the ML

5.2.2 Lead

Regulation (EC) 2023/915 Commission Regulation 333/2007

Product	Max Level (ppm)	Method of Analysis
Muscle meat of fish	0.3	LOD =three tenths of the ML LOQ less than or equal to one fifth of the ML

5.2.3 Cadmium

Regulation (EC) 2023/915 and Commission Regulation 333/2007

Product	Max level (ppm)	Method of Analysis
Muscle meat of fish, excluding those listed below	0.05	LOD =three-tenths of the ML
Muscle meat of: Mackerel (<i>Scomber</i> species) and tuna (<i>Thunnus</i> species, <i>Katsuwonus pelamis</i> , <i>Euthynnus</i> species)	0.1	LOQ ≤ two fifths of the ML
Bullet tuna (<i>Auxis</i> species)	0.15	Except bullet tuna and swordfish LOQ ≤ on fifths of the ML
Muscle meat of swordfish (<i>Xiphias gladius</i>)	0.25	

5.2.4 Dioxin and dioxin like PCBs

Regulation 2023/915

The maximum limits of dioxins and dioxin like PCBs in fish muscle

Fishery products	Sum dioxins (WHO-PCDD/F- TEQ pg/g)	Sum dioxins and dioxin-like PCBs (WHO- PCDD/F-PCB-TEQ pg/g)	Sum of dioxin like PCBs (ng/g)
Muscle meat of fishery products excluding eel	3.5 pg/g wet weight	6.5 pg/g wet weight	75ng/g wet weight

5.2.5 Parasites

Food business operators and CA alike must ensure that fishery products have been subjected to a visual examination for the purpose of detecting visible parasites before being placed on the market.

They must not place fishery products that are obviously contaminated with parasites on the market for human consumption.

5.2.6 Toxins harmful to human health

1. Fishery products derived from poisonous fish of the following families must not be placed on the market: *Tetraodontidae*, *Molidae*, *Diodontidae* and *Canthigasteridae*.
2. Fresh, prepared, frozen and processed fishery products belonging to the family *Gempylidae*, in particular *Ruvettus pretiosus* (Escolar) and *Lepidocybium flavobrunneum* (Oilfish), may only be placed on the market in wrapped/packaged form and must be appropriately labelled to provide information to the consumer on preparation/cooking methods and on the risk related to the presence of substances with adverse gastrointestinal effects. The scientific name of the fishery products must accompany the common name on the label.

3. Fishery products containing biotoxins such as ciguatoxin or muscle-paralysing toxins must not be placed on the market.

6 WRAPPING AND PACKAGING OF FISHERY PRODUCTS

1. Receptacles in which fresh fishery products are kept under ice must be water-resistant and ensure that melt water does not remain in contact with the products.
 2. Frozen blocks prepared on board vessels must be adequately wrapped before landing.
 3. When fishery products are wrapped on board fishing vessels, food business operators must ensure that wrapping material:
 - a) is not a source of contamination
 - b) is stored in such a manner that it is not exposed to a risk of contamination
 - c) intended for re-use is easy to clean and, where necessary, to disinfect.
-

7 STORAGE OF FISHERY PRODUCTS

Food business operators storing fishery products must ensure compliance with the following requirements.

1. Fresh fishery products thawed unprocessed fishery products, and cooked and chilled products from crustaceans and molluscs, must be maintained at a temperature approaching that of melting ice.
2. Frozen fishery products must be kept at a temperature of not more than -18°C in all parts of the product; however, whole frozen fish in brine intended for the manufacture of canned food may be kept at a temperature of not more than -9°C .
3. Fishery products kept alive must be kept at a temperature and in a manner that does not adversely affect food safety or their viability.

8 TRANSPORT OF FISHERY PRODUCTS

Food business operators transporting fishery products must ensure compliance with the following requirements.

During transport, fishery products must be maintained at the required temperature. In particular: frozen fishery products must be maintained during transport at an even temperature of not more than -18°C in all parts of the product.

Short upward fluctuations of not more than 3°C are tolerated when frozen fishery products are transported from a cold store to an approved establishment to be thawed on arrival for the purposes of preparation and/or processing, if the journey is short and the competent authority so permits.

9 TRAINING

All staff must undergo induction training covering fish spoilage, hygiene and handling with a particular focus on control of histamine.

Other specialist training may be required for crew with key responsibilities under the HACCP plan and/or supporting programmes. This training may include but is not limited to training in:

- Completion of records relating to hygiene, sanitary handling and temperature control
- Supervision of vessel operation and records when catching, storing and unloading fish especially tuna species

Records of training must be kept on file and made available to the CA Inspector upon request.

10 MAINTENANCE

All equipment, surfaces and facilities on board must be maintained in a sanitary condition as required by these Standards.

A maintenance register or log shall be used to monitor equipment, facilities and surfaces that need repair. The log or register shall detail:

-
- What needs to be fixed
 - By when
 - And allow for an initial or signature when the action is complete

Where calibrated equipment is used for critical measurements, this equipment must be calibrated against a reference standard or using an independent accredited calibration organisation at least annually or when measurements are unreliable.

11 RAW MATERIALS, INGREDIENTS, PACKAGING AND CHEMICALS

Raw materials, ingredients and packaging stored on a vessel shall be:

- a) Maintained under conditions that will prevent spoilage
- b) Protected against contamination
- c) Protected against damage.
- d) Not processed or used unless inspected for contamination, decomposition and parasites in the gut cavity as applicable before processing and found to be in a sound condition. The nature and frequency of such inspections shall be set by the operator and approved by Competent Authority officers

Stocks of raw materials and ingredients shall be used so as to ensure that the oldest stock is used first.

Any raw materials or ingredients used (other than fish) must have a supplier guarantee or certificate of analysis available to prove the material is suitable for use with food products.

Plastic packaging materials used in contact with fishery products must meet the requirements of EU Commission Regulation 10/2011 and associated amendments.

12 HACCP

12.1 GENERAL

All fish and fish products produced for export from approved vessels shall be produced in accordance with an approved and documented HACCP programme.

It is a requirement that a logical approach for food safety be followed based on the seven principles of HACCP. These principles are:

- i. identification of hazards, analysis of risks and determination of measures necessary to control them.
- ii. identification of Critical Control Points.
- iii. establishment of Critical Limits for each Critical Control Point.
- iv. establishment of Monitoring procedures.
- v. establishment of Corrective Action to be taken when Monitoring indicates that there is a deviation in control parameters.
- vi. establishment of Verification and review procedures
- vii. establishment of Documentation concerning all procedures and records.

12.2 HAZARD INFORMATION

Hazards can be:

- Biological hazards, such as:
 - Histamine
 - Pathogenic micro-organisms (e.g. harmful bacteria, viruses)
 - Parasites
- Chemical hazards, such as:
 - environmental contaminants, including heavy metals and organochlorine compounds
 - unapproved food and colour additives
 - Marine biotoxins such as Ciguatera Food Poisoning (CFP)
- Physical hazards, such as metal, glass, etc.

12.3 CONTENTS OF HACCP PLAN

The HACCP plan shall be developed for each product manufactured by the establishment.

Such a programme should include the following as a minimum:

1. Company description including company name, address, overall person responsible, phone number.
2. Scope of the HACCP plan. Namely what products/processes are covered and where the processes start and finish
3. A company organisation chart or information covering personnel with key responsibilities under the HACCP plan.

4. A company HACCP policy signed by an authorised company representative.
5. HACCP team members, their responsibilities and background.
6. References used to develop or support the HACCP plan.
7. Product description or specification including method of preparation and storage, intended use, product characteristics, target consumer group, packaging, additives and ingredients and method of distribution or storage.
8. Process flow clearly showing all steps in the process as well as inputs (either in the flow or elsewhere in the HACCP plan) and process variations as applicable to each step. The flow shall be verified by an authorised company person.
9. Identification of any hazards (raw material and process) that must be prevented, eliminated or reduced to acceptable levels.
10. Identification of biological, chemical and physical hazards for process steps.
11. Analysis of hazards for significance (likelihood and severity).
12. Identification of appropriate critical control points at the step or steps at which control is essential to prevent or eliminate a hazard or to reduce it to acceptable levels
13. Establishment of critical limits at critical control points which separate acceptability from unacceptability for the prevention, elimination or reduction
14. of identified hazards. Limits must be scientific or validated, measurable and allow adequate control of the hazard.
15. Documentation of effective monitoring procedures at critical control points covering who, what, how and when for each aspect monitored. Monitoring frequency should allow adequate control of the hazard.
16. Documentation of corrective actions when monitoring indicates that a critical control point is not under control. Corrective action to cover action taken to rectify the cause as well as product disposition and responsibilities. Actions to prevent recurrence also covered where possible.
17. Documentation of procedures, which shall be carried out regularly, to verify that the measures outlined in subparagraphs (a) to (i) are working effectively. The procedure must cover record review, internal audit, annual review, product testing and calibration with "who, what, how and when being covered for each element of verification.
18. Establishment of a document and records procedure commensurate with the nature and size of the food business to demonstrate the effective application of the measures outlined in subparagraphs (a) to (h). Documents and records must include date and/or version number for document control. Records must record date and time of observation and the signature of the person performing the check.

12.4 APPROVAL OF HACCP PLANS

The HACCP programme must be signed and dated by an authorised company representative and submitted to the Competent Authority for approval. When the HACCP plan is signed by the company representative it represents management's acceptance and commitment implementing the plan.

The approval of the HACCP Plan shall be valid for 12 months period subject to satisfactory audits during that period.

HACCP programmes shall also be subject to annual review, or more frequently if changes occur in the product or process. The review must be completed by company personnel who have completed a HACCP course approved by the CA.

The annual review shall consider the following:

- a) Review of records pertaining to the HACCP plan including monitoring records, corrective action records, supporting system records and product test results to demonstrate compliance and production of safe product.
 - b) Review of non-conformances in particular recurring non-conformances
 - c) Review of customer complaints for food safety reasons
 - d) Consideration of any food safety recalls in the past 12 months
 - e) Review of legislative requirements to identify legal requirements that may have changed since the HACCP plan was written.
 - f) Review of the process to determine any changes made since the HACCP plan was written.
-

Should changes be made to the approved HACCP plan, these changes must be notified to the CA for approval.

13 TRACEABILITY

It must be possible to trace, for inspection purposes, the source catching vessel of consignments of fishery products, by means of labelling and by accompanying documents.

Companies must document and operate an Inventory Control system that provides for the identification and tracing of product from initial catch through to final sale. The programme should provide for both physical tracing at all stages of processing as well as the ability to trace product via the records kept and product codes.

For every batch of fish, operators' records should provide the capacity to identify the catching vessel, the trip number and the date and area of catching.

14 FORMS AND CHECKLISTS

Annex 2 of this document contains the forms and checklists vessel operators will need to ensure compliance with CA and national requirements to gain and maintain CA approved vessel status.

These include:

1. F25a Application form for Exporter Registration and Listing: this form is to be completed by the operator each time they wish to apply for a NEW vessel approval. It should also be completed on an annual basis for renewal of vessel approval.
2. F25B Form to make Amendments to Approval Details: this form should be used by the vessel operator ONLY if any of the details of the vessel or its operation have changed, and the CA needs to be advised on those changes.
3. F26 Application form for Vessels Intending to Export to the EU or Wishing to Gain Health Certificates: this form should be completed and submitted with F25A given in point 1 above.
4. F29 Form to Request a Health Certificate: the vessel operator will need to complete this form and submit it to the CA EACH time they wish to export direct from their vessel and the intended market requires a Health Certificate e.g. EU and China.
5. F30 Form to Request the CA make Changes to the Previously Issued Health Certificate: this form is only to be used by the vessel operator when he/she realises that the information in the previously completed Health Certificate is incorrect.
6. Form F07B Designation of Fuel Storage System by Purse Seine Operator

ANNEX 2: Forms and Checklists

F25A Application Form – Exporter Registration & listing

Application Form: Exporter registration and listing - F25A		CA Verification
1. Exporter Identification		
A unique identification will be assigned to each exporter. Refer form guidelines for criteria.		
Registration ID:		
2. Applicant Name:		
Registered company name or partnership names (including the trading name) or individual name.		
Full legal name:		
3. Business Address and Contact Details:		
Physical (for service/delivery of items):		
Phone No:		
Fax No:		
Postal (for communication):		
E-mail:		
4. Processing Establishment/Vessel Address(es) and Contact Details:		
Only complete if the Processing establishment/vessel details are different from the business address in Section 3.		
Legally registered address:		
Phone No:		
Fax No:		
E-mail:		
5. Type of listing: Tick [.] as many product categories as are applicable		
Exporter	Supplier	
<input type="checkbox"/> Processing Establishment	<input type="checkbox"/> Fishing Vessel <input type="checkbox"/> Coastal	
<input type="checkbox"/> Fishing Vessel	<input type="checkbox"/> Off Shore	
<input type="checkbox"/> Cool Store	<input type="checkbox"/> Reefer	
	<input type="checkbox"/> Cool Store	
	<input type="checkbox"/> Ice Factory	
	<input type="checkbox"/> Transporters	
	<input type="checkbox"/> Landing site	
Type of Product		
<input type="checkbox"/> Wild Caught <input type="checkbox"/> Fresh/Frozen	Others: (specify)	
<input type="checkbox"/> Smoked <input type="checkbox"/> Conserved		

Markets sought: <input type="checkbox"/> EU <input type="checkbox"/> Other (see over)	Others: <i>(specify)</i>
6. Applicant Declaration: To be completed by applicant. I declare that:	
(a) I am authorised to make this application as the exporter or person with legal authority to act on behalf of the exporter; and	
(b) the information supplied in this application is truthful and accurate to the best of my knowledge; and	
(c) the applicant is a Tuvalu resident, and in within the meaning of applicable sections of company registrations and tax purposes legislation, and	
(d) I accept that due to the voluntary basis of this registration, it would be expected from the company to comply with production and compliance standards, as well as verification frequency that could exceed the requirements of the prevailing Tuvalu legislation, and	
(e) I accept that verifications and control of Fish & Fishery Products processing establishments exporting fish and fishery products, will as be performed by the Tuvalu CA as the Competent Authority (CA)	
(f) I accept that the obtaining of this registration is conditional to a positive outcome of a Verification visit performed by Competent Authority against standards lay down under the relevant regulations and the contents of the National Control Plan issued and managed by the CA, and	
(g) I accept that maintaining this registration as part of the listing of companies allowed to export of fish and fishery products, is dependent on continuous regulatory compliance and ongoing performance against standards lay down under the relevant legislation (including overseas market access requirements) and the contents of the National Control Plan issued and managed by the CA, and	
Name:	Date:
Designation:	Signature:
Attachments: Product flow diagram HACCP plan Equipment and Facilities details	Site plan Supporting programmes Details of services (water, power etc.)
<i>Notes Section 1:</i> A unique identification will be assigned to each exporter and must not be the same as any other identification used in regard to any other activity regulated under these regulations. In case the applicant holds identification as an exporter to the EU under prior verification regimes, this ID would be maintained.	
Official Use Only: Approved/Not approved: Date: Signed: Tuvalu CA Stamp:	

F25B - Amendments to Approval Details Form

Application Form: Exporter registration and listing	
1. Exporter Identification	
Registration ID:	
2. Applicant Name:	
Registered company name or partnership names (including the trading name) or individual name.	
Full legal name:	
3. Business Address and Contact Details:	
Physical (for service/delivery of items):	
Phone No:	
Fax No:	
Postal (for communication):	
E-mail:	
4. Processing Establishment Address(es) and Contact Details:	
Only complete if the Processing establishment details are different from the business address in Section 3.	
Legally registered address:	
Phone No:	
Fax No:	
E-mail:	
5. Type of listing: Tick [.] as many product categories as are applicable	
Exporter	Supplier
<input type="checkbox"/> Processing Establishment	<input type="checkbox"/> Fishing Vessel <input type="checkbox"/> <i>Coastal</i>
<input type="checkbox"/> Fishing Vessel	<input type="checkbox"/> <i>Off Shore</i>
<input type="checkbox"/> Cold Store	<input type="checkbox"/> <i>Reefer</i>
	<input type="checkbox"/> Cold Store
	<input type="checkbox"/> Ice Factory
	<input type="checkbox"/> Transporters
	<input type="checkbox"/> Landing site

Type of Product	
<input type="checkbox"/> Wild Caught <input type="checkbox"/> Fresh/Frozen <input type="checkbox"/> Smoked <input type="checkbox"/> Conserved	Others: (specify)
Markets sought: <input type="checkbox"/> EU <input type="checkbox"/> Other (see over)	Others: (specify)
Official Use Only: Approved/Not approved: Date: Signed: Tuvalu CA Stamp:	

F26 Application Form – Vessel Intending to Export to the EU or Wishing to Gain Health Certificates

Vessel Data Sheet			F26
Date:		Inspection Place:	
Time Spent on Inspection		From:	To: Hours:
Vessel Details			
Vessel Name:		Registration Number:	
Flag Country:		Inspection Ref.:	
Vessel Approval Reference Number:		Vessel Approval Date:	
Vessel Owner:			
Name:		Telephone:	
Address:			
Quality Manager:			
Name:		Number of Crew:	
Vessel Type	<input type="checkbox"/> Transport <input type="checkbox"/> Factory <input type="checkbox"/> RSW <input type="checkbox"/> Ice <input type="checkbox"/> Brine <input type="checkbox"/> Freezer		
Fishing Methods	(A vessel can have multiple fishing methods)		
	Type 1: Trawler		
	Type 2: Long line		
	Type 3: Pole and line		
	Type 4: Purse seiners		
	Type 5: Gill netting		
	Type 6: Deep Sea Fishing		
Type 7: Other (Please specify):			

F30 Request to Change/Re-issue Export Health Certificate Information

Application Form: Health Certificate Information		F30
Original Health Certificate Ref. No.:		
Change/Re-issue Required: (Please be as specific as possible giving actual replacement information required). The Tuvalu CA reserves the right to refuse the re-issue of a health certificate		
Company Justification for Change:		
FOR Tuvalu CA USE ONLY:		
Request approved or denied: (circle as appropriate): APPROVED DENIED		
Reasons:		
Replacement Certificate No.:		
Signature of certifying officer:		
Name of certifying officer:		
Date:		

Please complete return to Mr. Alipate Momoka E mail: josuamomokanaso@gmail.com

F07B Designation of fuel storage system by purse seine operator

Vessel name:	
Vessel Registration number:	
Vessel Operator:	

I the undersigned declare that:

	Port	Starboard
1. The following wells will be used exclusively for fuel:		
2. The following wells will be used exclusively for brine and brine freezing of fish		

I undertake to ensure that wells designated above will not be used for any other purpose than the one for which they are designated. I will supply copies of bunkering delivery notes on demand to the Competent Authority

Signed (Captain):	
Name:	
Date:	