

TUVALU VESSEL STANDARDS



Endorsed by

Mr. Sam Finikaso

Director, Tuvalu Department of Fisheries,

This Document has been developed with the support of:



Contents

1.0	Definitions	3
2.0	FISHING VESSELS	7
2.1	STRUCTURAL AND EQUIPMENT REQUIREMENTS	7
2.2	HYGIENE REQUIREMENTS	13
3.0	REQUIREMENTS DURING AND AFTER LANDING	13
4.0	HEALTH STANDARDS FOR FISHERIES PRODUCTS	14
5.0	WRAPPING AND PACKAGING OF FISHERY PRODUCTS	18
6.0	STORAGE OF FISHERY PRODUCTS	18
7.0	TRANSPORT OF FISHERY PRODUCTS	19
0.8	PACKAGING AND LABELLING OF SEAFOOD PRODUCTS	19
9.0	TRAINING	20
10.0	MAINTENANCE	21
11.0	RAW MATERIALS, INGREDIENTS, PACKAGING AND CHEMICALS	21
12.0	HACCP	21
12.1	General	21
12.2	Contents of HACCP Plan	22
12.3	Approval of HACCP Plans	23
12	.3.1 Suspension or Withdrawal of Approval	24
12.4	Hazard Information	24
13.0	TRACEABILITY	25
14.0	FORMS AND CHECKLISTS	26
ANN	EX 1: Organoleptic Evaluation Checklist	27
ANN	EX 2: Forms and Checklists	28
F2	5A Application Form – Exporter Registration & listing	28
F2	5B - Amendments to Approval Details Form	30
F2 Ce	6 Application Form – Vessel Intending to Export to the EU or Wishing to Gain Health ertificates	32
	9 Health Certificate Export Information form	
E2	O Request to Change/Relissue Export Health Certificate Information	34

1.0 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.

Contamination the presence or introduction of a hazard.

Contaminant any biological or chemical agent, foreign matter or other substances not

intentionally added to food that may compromise food safety or suitability.

Control (verb) to take all necessary actions to ensure and maintain compliance with criteria

established in a HACCP plan or support programme.

Control (noun) the state wherein correct procedures are being followed and criteria are

being met.

Control measure Any action and activity that can be used to prevent or eliminate a food safety

hazard or reduce it to an acceptable level. For the purposes of this Code, a

control measure is also applied to a defect.

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.

Disinfection the reduction by means of chemical agents and/or physical methods in the

number of micro-organisms in the environment to a level that does not compromise food safety or suitability. Equivalent in respect to different

systems, capable of meeting the same objectives.

Establishment any unit of a food business.

TUVALU VESSEL STANDARD

Version 1

February 2024

Fishing Vessel

Vessels which bleed, head, gut or remove fins of fish into a chilled or frozen

state

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.

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.

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.

Fitness for purpose

Suitable for intended use

Flow diagram

A systematic representation of the sequence of steps or operations used in the production or manufacture of a particular food item.

Food hygiene

the measures and conditions necessary to control hazards and to ensure fitness for human consumption of a foodstuff taking into account its intended use.

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.

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.

Mechanically separated fishery product: means any product obtained by removing flesh from

fishery products using mechanical means resulting in

the loss or modification of the flesh structure.

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.

Official analysis
Analysis carried out by CA designated laboratory

Official control any form of control that the competent authority performs for the verification

of compliance with the standard (feed and food law).

Packing The placement of fish into a container and includes sorting and grading.

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 consumption¹

Prepared fishery products: unprocessed fisheries products that have undergone an

operation affecting their anatomical wholeness, such as gutting,

heading, slicing, filleting, and chopping.

Primary products means products of primary production including products of the soil, of stock

farming, of hunting and fishing.

Processing any action that substantially alters the initial product, including heating,

smoking, curing, maturing, drying, marinating, extraction, extrusion or a

combination of those processes.

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.

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.

Refrigerated seawater

Clean seawater cooled by a suitable refrigerated system.

Sanitary design

In relation to any licensed facility, internal structure, equipment, or conveyance, means designed, constructed, and located so that it minimises the risk of contamination

Sanitise

adequate treatment of surfaces by approved processes that are effective in reducing microbial contamination to a level that will not give rise to a health hazard.

Sample unit

one container and its contents, or individual fish, drawn at random from a batch.

Shall

Denotes a mandatory requirement.

Shipping containers

those containers used to store or otherwise contain raw materials and/or finished product under conditions that will prevent deterioration

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 Also known as pre-requisite programme, standard operating procedure (SOP), standard sanitary operating procedure (SSOP).

Validation

Obtaining evidence that a programme (HACCP plan or other documented programme required under these standards) is complete and meets the requirements of the legislation, and when implemented, will consistently achieve the required outcomes of the programme.

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

Codex Alimentarius Commission CAC CCP Critical Control Point CA Competent Authority Competent Authority Officer(s) CAO European Commission EC EU **European Union**

TUVALU VESSEL STANDARD Version 1					
	FAO	Food and Agriculture Organ	nisation		
	FDA	US Food and Drug Adminis	tration		
	GMP	Good Manufacturing Practic	ce		
	HACCP	Hazard Analysis Critical Co	ntrol Points		
	PSP	Paralytic Shellfish Poisonin	g		
	NSP	Neurotoxic Shellfish Poison	ing		
	DSP	Diarrheic Shellfish Poisonin	ıg		
	ASP	Amnesic Shellfish Poisonin	g		
	CFP	Ciguatera Food Poisoning			
	ppm	Parts per million			
	RSW	Refrigerated Sea Water			

Total Volatile Basic Nitrogen

World Health Organisation

Standard Sanitation Operating Procedures

2.0 FISHING VESSELS

TVB-N

SSOP

WHO

Food business operators must ensure that:

 Vessels used to harvest fishery products from their natural environment, or to handle or process them after harvesting, comply with the structural and equipment requirements laid down in Part 2.1; and

February 2024

2. Operations carried out on board vessels take place in accordance with the rules laid down in Part 2.2

2.1 STRUCTURAL AND EQUIPMENT REQUIREMENTS

A. Requirements for all vessels (including ice boats and boats equipped to preserve fish less than 24 hours)

- 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.
- 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. Decks used for fish handling may be constructed of materials that are durable, corrosion resistant, non-absorbent and inert.
 - Where fish does not normally come into contact with the deck and the timber is clean, sound and well caulked, timber is allowed on exposed decks.
- 7. Water used at any stage of handling / processing shall comply with the parameters of potable water or of clean seawater given below.

*Potable water and clean seawater must meet the following parameters: 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)
Escherichia coli	100	0	0 (number/100 ml)

- Potable water samples should be collected from the port of intake.
- 8. 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.
- 9. 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 the propulsion or bilge water.
- 10. 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.
- 11. 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.
- 12. 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.

- 13. Fishery products other than those kept alive must undergo chilling or freezing as soon as possible after landing.
- 14. Ice used to chill fishery products must be made from potable water or clean water.
- 15. 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.
- 16. Staff assigned to handling fishery products shall maintain a high standard of cleanliness for themselves and all outer clothing.
- 17. Hydraulic circuits shall be protected in such a way as to ensure no oil leakage can contaminate products.
- 18. 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.
- 19. 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.
- 20. 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.
- 21. 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.
- 22. 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.

B. Requirements for vessels designed and equipped to preserve fresh fishery products for more than twenty-four hours

1. 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.

- 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.
- 3. In vessels equipped for chilling fishery products in cooled clean seawater, tanks must incorporate devices for 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.

Tanks must be equipped with adequate seawater filling and drainage installations and must incorporate devices for achieving uniform temperature throughout the tanks;

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; and,

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.

4. Sanitary facilities including toilet and shower facilities shall be sufficient in number for the normal complement of crew. Any toilet must be equipped with a non-hand, non-elbow operated wash basins located in the toilet room or immediately outside the door.

C. Requirements for freezer vessels

Freezer vessels must:

- 1. Have freezing equipment with sufficient capacity to lower the temperature rapidly so as to achieve a core temperature of not more than -18°C;
- 2. Freeze whole fish in brine intended for canning at -9°C or less;

- 3. 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
 - 5. 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.
 - 6. When brine-freezing, the brine shall not be a source of contamination.

D. Requirements for factory 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)

- (h) Hand-washing equipment for use by the staff engaged in handling exposed fishery products with taps designed to prevent the spread of contamination.
- (i) 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

E. 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.

2.2 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. When they are washed, the water used must be either potable water or, where appropriate, clean water.
- 3. 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.
- 4. Fishery products other than those kept alive must undergo chilling as soon as possible after loading. However, when chilling is not possible, fishery products must be landed as soon as possible.
- 5. Ice used to chill fishery products must be made from potable water or clean water.
- 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 at a temperature of not more than 9 °C must be destined for canning. The brine must not be a source of contamination for the fish.

3.0 REQUIREMENTS DURING AND AFTER LANDING

- 1. Food business operators responsible for the unloading and landing of fishery products must:
 - (a) 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
 - (b) Avoid contamination of fishery products during unloading and landing, in particular by:
 - (i) Carrying out unloading and landing operations rapidly;
 - (ii) Placing fishery products without delay in a protected environment at the temperature specified below:
 - 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.
 - 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.

(iii) Not using equipment and practices that cause unnecessary damage to the edible parts of the fishery products.

4.0 HEALTH STANDARDS FOR FISHERIES PRODUCTS

A. ORGANOLEPTIC PROPERTIES OF FISHERY PRODUCTS

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

(i) 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.

	Criteria			
	F			
	Extra (3)	A (2)	B (1)	Not admitted (0)
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.

B. HISTAMINE

EU Commission Regulation 1019/2013 and EU Regulation 2073/2005 Histamine monitoring would be based in a three-monthly sample of 9 samples of fish of the same species.

This sample is independent of the volumes exported/caught by each vessel. Tuna and families *Scombridae* and *Clupeidae* - Chilled or frozen

Tests	Tolerance	
Histamine	n= 9, c= 2, m= 100 mg/kg, I 100 mg/kg	M= 200mg/kg, average≤

Rejection

A batch will be rejected when it fails to meet the acceptance criteria given above. In this case the company will need to contact their Competent Authority Inspector to agree an acceptable disposition or re-sampling regime.

C. HEAVY METALS

Mercury

Regulation (EC) 2023/915

Commission Regulation 333/2007

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

Product	MRL (mg/kg)	Tolerance
Other species not listed below	1.0	LOD = three-tenths of MRL LOQ ≤ one fifth of the ML
Bonito (Sarda sarda)	0.5	LOD = three-tenths of MRL
Common pandora (Pagellus erythrinus) Escolar (Lepidocybium flavobrunneum)		≤ one fifth of the ML
Marlin (Makaira species)		
Megrim (Lepidorhombus species)		
Oilfish (Ruvettus pretiosus)	<u> </u>	
Pink cusk-eel (Genypterus blacodes)		
Pike (Esox species)		
Plain bonito (Orcynopsis unicolor)		
Poor cod (Trisopterus species)		
Red mullet (Mullus barbatus barbatus) Roundnose grenadier (Coryphaenoides rupestris)		
Sail fish (Istiophorus species)		
Silver scabbardfish (Lepidopus caudatus) Snake mackerel (Gempylus serpens)		
Tuna (Thunnus species, Euthynnus species, Katsuwonus pelamis) Shark (all species) Swordfish (Xiphias gladius)		

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

Cadmium

Regulation (EC) 2023/915

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		
Muscle meat of: Mackerel (Scomber species) and tuna (Thunnus species, Katsuwonus pelamis, Euthynnus species)	0.1	ML LOQ ≤ two fifths of the		
Bullet tuna (Auxis species)	0.15	Except bullet tuna an swordfish LOQ ≤ on fifth		
Muscle meat of swordfish (Xiphias gladius)	0.25	of the ML		

D. RESIDUES AND CONTAMINANTS

Dioxin and Benzo (a) pyrene

Regulation 2023/915

High levels of Dioxin and PCBs are very unlikely in the species exported, as referenced on: "Background note on EFSA risk assessment related to the safety of wild and farmed fish (Request N° EFSA- Q-2004-23) July,2005.

http://www.efsa.europa.eu/etc/medialib/efsa/press room/questions and answers/10 15.Par.0001.File.dat/ga contam swaff en1.pdf

Maximum limits for Dioxins

Fishery products	Sum dioxins (WHO-PCDD/F- TEQ)	Sum of PCB 28/52/101/138/153/180	
Muscle meat of fishery products excluding eel	3.5 pg/g wet weight	6.5 pg/g wet weight	75ng/g wet weight

E. 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.

F. 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.

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.

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

5.0 WRAPPING AND PACKAGING OF FISHERY PRODUCTS

- 1. Receptacles in which fresh fishery products are kept under ice must be waterresistant 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.

6.0 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.

7.0 TRANSPORT OF FISHERY PRODUCTS

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

- 1. During transport, fishery products must be maintained at the required temperature. In particular:
 - (a) 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;
 - (b) frozen fishery products, with the exception of frozen fish in brine intended for the manufacture of canned food, must be maintained during transport at an even temperature of not more than -18°C in all parts of the product, possibly with short upward fluctuations of not more than 3°C.
- 2. Food business operators need not comply with point 1(b) 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.
- 3. If fishery products are kept under ice, melt water must not remain in contact with the products.
- 4. Fishery products to be placed on the market live must be transported in such a way as not adversely to affect food safety or their viability.

8.0 PACKAGING AND LABELLING OF SEAFOOD PRODUCTS

Requirements for labelling are to be based on EU Regulation 1169/2011 and EU Regulation 1379/2011 on labelling, presentation and advertising of foodstuffs to the final consumer. The aim of this legislation is to ensure that the consumer gets all the essential information as regards the composition of the product, the manufacturer, methods of storage and preparation, etc.

Plastic packaging shall meet the requirements of Regulation 10/2011.

Please note the information supplied below is a summary only – the EU legislation should be referred to in entirety to provide further detailed information if required.

General

Fish and fish products may only be marketed in the European Union if packages contain the following information (not necessarily in this order):

- (1) the name under which the product is sold;
- (2) the list of ingredients or processing aids (if applicable)
- (3) the list of any ingredients that may cause allergic reactions (if applicable) and including cereals,
- (4) scientific name of the fish
- (5) the production method (wild caught or caught in fresh water)

- (6) the area from which the product was caught (3 digit FAO catch area)
- (7) the category of fishing gear
- (8) the date of production
- (9) whether the product has been defrosted
- (10) the net weight or quantity
- (11) the date of minimum durability as a "USE BY" date
- (12) any special storage conditions or conditions of use
- (13) the name or business name and address of the manufacturer or packager
- (14) the country of origin

Frozen unprocessed product

In the case of frozen unprocessed product labels should contain the information given in the general section previously given plus the following:

- a. the date of freezing or the date of first freezing in situations where the product is frozen more than once
- b. the date of freezing shall be preceded by "Frozen on."
- c. the date should consist at least of day, month and year in uncoded situations

NOTE: The lot is defined by the processor in order to be able to trace a product history in case of a problem. It can be the production date.

9.0 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.

10.0 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.

11.0 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.

12.0 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 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:

- a. Company description including company name, address, overall person responsible, phone number.
- b. Scope of the HACCP plan. Namely what products/processes are covered and where the processes start and finish
- c. A company organisation chart or information covering personnel with key responsibilities under the HACCP plan.
- d. A company HACCP policy signed by an authorised company representative.
- e. HACCP team members, their responsibilities and background.
- f. References used to develop or support the HACCP plan.
- g. 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.
- h. 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.
- Identification of any hazards (raw material and process) that must be prevented, eliminated or reduced to acceptable levels;
- j. Identification of biological, chemical and physical hazards for process steps.
- k. Analysis of hazards for significance (likelihood and severity).
- 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
- m. Establishment of critical limits at critical control points which separate acceptability from unacceptability for the prevention, elimination or reduction

- of identified hazards. Limits must be scientific or validated, measurable and allow adequate control of the hazard.
- n. 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.
- 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.
- p. 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.
- q. 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.

12.3 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.

12.3.1 Suspension or Withdrawal of Approval

The CA shall suspend and or withdraw this approval (HACCP approval) at any time if the food business operator (vessel) fails and audit and with critical non-compliance identified.

Suspension and or withdrawal shall be in writing served to the company and or management,

12.4 Hazard Information

Hazards can be:

- a. Biological hazards, such as:
 - i. Pathogenic micro-organisms (e.g. harmful bacteria, viruses)
 - ii. Parasites
- b. Chemical hazards, such as:
 - i. natural toxins
 - ii, pesticides
 - iii. veterinary drug residues
 - iv. unapproved food and colour additives
- c. Physical hazards, such as metal, glass, etc.

Hazards can be:

- unacceptable contamination (or recontamination) of a biological (microorganisms, parasites), chemical or physical nature of raw materials, intermediate or final products;
- unacceptable survival or multiplication of generation of chemicals in intermediate products, final products, production line or environment; and
- unacceptable production or persistence of toxins or other undesirable products of microbial metabolism.
- Species related hazards that are potential hazards associated with specific species of fishery products. Species related hazards are:
 - i) chemical contamination
 - ii) mercury
 - iii) natural toxins
 - Paralytic Shellfish Poisoning (PSP)
 - Neurotoxic Shellfish Poisoning (NSP)
 - Diarrheic Shellfish Poisoning (DSP)
 - Amnesic Shellfish Poisoning (ASP)
 - Ciguatera Food Poisoning (CFP)

- Clupeotoxin
- Chondrichthytoxin
- Tetrodotoxin (Puffer fish)
- Gempylotoxin (esolar)
- iv) histamine
- v) parasites
- vi) veterinary / aquaculture drugs
- Process related hazards are potential hazards that are associated with food handling, preparation or processing. Examples of process related hazards are:
 - Inadequate drying, pathogen growth, toxin formation as a result of inadequate salt, sugar, and/or nitrite concentration:
 - ii) Pathogen survival through cooking;
 - iii) Cross-contamination;
 - iv) Temperature abuse during processing of cooked products;
 - v) Temperature abuse during processing of chilled products;
 - vi) Microbiological growth in batters;
 - vii) Pathogen survival through pasteurization;
 - viii) Recontamination after pasteurization;
 - ix) Temperature abuse during final cooling;
 - Temperature abuse during finished product storage;
 - xi) Temperature abuse during distribution;
 - xii) Excessive amounts of food and colour additive; and
 - xiii) Important physical hazards.

13.0 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.

14.0 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.

ANNEX 1: Organoleptic Evaluation Checklist

Name of the establishment:	Approval Number:
Verification Officers:	Representatives of the establishment:
Type of product:	Processing stage:
Date of Verification:	Time:
Vessel name:	Temperature of product:

Freshness index (FI): A: Good = 3 B: Medium = 2 Reject = 0

C: Low = 1

(Conduct Organoleptic evaluation on 5 different fish of each species)

Criteria	E	Evalu	atio	n	Average	Temperatur e	Comments
Skin	3	2	1	0			
Pigmentation							
Slime							
Smell							
Eyes	3	2	1	0			
Convexity							
Bloodiness							
Operculum	3	2	1	0			
Colour							
Slime							
Gills	3	2	1	0			
Colour			100				
Slime							
Smell							
Viscera	3	2	1	0			
Smell							
Belly Burnt						19 10 19	
Texture	3	2	1	0			
Response to finger pressure							
Total Average							
Freshness index							
From 3 to 2.7 = A	11	Ob	serv	ation	ns including	presence of pa	arasites.
From 2.7 to 2 = B							
From 2 to 1.5 = C							
From 1.5 to 0 = R							

ANNEX 2: Forms and Checklists

F25A Application Form – Exporter Registration & listing

Application Form: Exporter registration	CA Verification			
1. Exporter Identification				
A unique identification will be assigned to each exporter				
Registration ID:		-		
2. Applicant Name:				
Registered company name or partnership r				
name) or individual n	ame.	_		
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 Add Details:	ress(es) and Contact			
Only complete if the Processing establishment/vessel de address in Section 3.	tails are different from the business			
Legally registered address:				
Phone No:				
Fax No:				
E-mail:				
5. Type of listing: Tick [,] as many product categor	ies as are applicable			
Exporter	Sur	pplier		
[] Processing Establishment	[] Processing Establishment [] Fishing Vessel [] Coasta			
[] Fishing Vessel [] Off Shore				
[] Cool Store [] Reefer				
	[] Cool Store			
	[] Ice Factory			
[] Transporters				
T:	ype of Product			
[] Wild Caught [] Fresh/Frozen	Others: (specify)			
[] Smoked [] Conserved				

Markets sought:	Others: (specify)
[] EU [] Other (see over)	
6. Applicant Declaration: To be completed by applicant declare that:	nt.
(a) I am authorised to make this application as the expo	orter or person with legal authority to act on behalf of the exporter;
(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 purposes legislation, and	meaning of applicable sections of company registrations and tax
	ration, it would be expected from the company to comply with cation frequency that could exceed the requirements of the prevailing
(e) I accept that verifications and control of Fish &Fishe products, will as be performed by the Tuvalu CA as the	ery Products processing establishments exporting fish and fishery Competent Authority (CA)
(f) I accept that the obtaining of this registration is cond Competent Authority against standards lay down under Plan issued and managed by the CA, and	litional to a positive outcome of a Verification visit performed by the relevant regulations and the contents of the National Control
products, is dependent on continuous regulatory compl	the listing of companies allowed to export of fish and fishery liance and ongoing performance against standards lay down under ess requirements) and the contents of the National Control Plan
Name:	Date:
Designation:	Signature:
Attachments:	
Product flow diagram	Site plan
HACCP plan	Supporting programmes
Equipment and Facilities details	Details of services (water, power etc.)
activity regulated under these regulations.	nust not be the same as any other identification used in regard to any other
	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 a	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 establis	hment 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 categor	ies as are applicable
Exporter	Supplier
[] Processing Establishment	[] Fishing Vessel [] Coastal
[] Fishing Vessel	[] Off Shore
[] Cold Store	[] Reefer
	[] Cold Store
	[] Ice Factory
	[] Transporters
	[] Landing site

Type of Product	
[] Wild Caught [] Fresh/Frozen	Others: (specify)
[] Smoked [] Conserved	
Markets sought:	Others: (specify)
[] EU [] Other (see over)	
Official Use Only:	
Approved/Not approved:	
Date:	
Signed:	
Tuvalu CA Stamp:	

$\mathsf{F26}$ Application Form – Vessel Intending to Export to the EU or Wishing to Gain Health Certificates

Vessel Data Sheet					F26	
Date:	Inspection Place:					
		From:		To:		Hours:
·						
Vessel Deta	ails					
Vessel Name:			Registrati Number:	tion		
Flag Country:			Inspection	n Ref.:		
Vessel			Vessel A	pproval		
Approval			Date:			
Reference						
Number:						
Vessel Owner:						
Name:	Telephone:					
Address:						
Quality Manager	r:					
Name:			Number	of Crew:		
Vessel Type	[] Transport	[]	Factory	[]	RSW	[] Ice
	[] Brine [] Freezer					
Fishing	(A vessel can have multiple fishing methods)					
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):					

F29 Health Certificate Export Information form

Please complete the following form in MS Word software so that the Tuvalu CA has all the necessary information to complete your Health Certificate. Please send the file by e-mail to the CA office. Email: josuamomokanaso@gmail.com Destination of Export (please circle): European Union Non-European Union

I.1. Consignor	I.5. Consignee				
Name	Name				
Address	Address				
Postal code	Postal Code Tel. No.				
Tel. No.					
I.7. Country of origin ISO Code 1.8. Region of origin Code	I.9. Country of destination	ISO Code I.10.			
I.11. Place of origin	1.12.				
Name: Approval number: Address:					
I.13. Place of loading	I.14. Date of departure	_			
I.15. Means of transport (please circle)	I.16. Entry BIP in EU				
Aeroplane Ship Railway wagon	inzer zitti y sir in ze				
Road vehicle Other (please specify)					
	1.17.				
Documentary references					
I.18. Description of commodity	I.19. Commo	odity code (HS code)			
		I.20. Quantity			
I.21. Temperature of product (please circle)		I.22. Number of packages			
Ambient Chilled Frozen	Brine Frozen				
I.23. Identification of container and seal number		I.24. Type of packaging			
1.25. Commodities certified for:					
Human consumption					
1.26.	I.27. For import or admission into	EU 🔲			
I.28. Identification of the commodities Specie (Scientific name) Nature of commodity Treatment type	Approval number of establishments Manufacturing plant No	umber of packages Net weight			

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

Application Form: Health Certificat	e 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 a	ppropriate): 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