



forestry, fisheries  
& the environment

Department:  
Forestry, Fisheries and the Environment  
**REPUBLIC OF SOUTH AFRICA**

# Standard Operating Procedure: Classification of Farms

Branch: Fisheries Management  
Chief Directorate: Aquaculture Development and Freshwater Fisheries  
Directorate: Sustainable Aquaculture Management

Issue 8: July 2024

**TITLE**

Standard Operating Procedure: Classification of Farms

**COMMENCEMENT**

This Standard Operating Procedure comes into force on 1 July 2024.

**REVOCATION**

This programme issue revokes and replaces Standard Operating Procedure: Classification of Farms (Issue 6) as well as any previous issues of the document.

**STANDARD OPERATING PROCEDURES ISSUED**

Issue	Date of issue
1	19 March 2014
2	1 June 2016
3	1 June 2017
4	1 February 2018
5	1 January 2019
6	1 September 2020
7	1 September 2023

**ISSUING AUTHORITY**

This Standard Operating Procedure is issued by the Environmental Officer Specialised Production of the Directorate Sustainable Aquaculture Management of the Department of Forestry, Fisheries and the Environment in terms of the Aquacultured Marine Fish Food Safety Programme (AMFFSP).



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Environmental Officer Specialised Production

DATE: 01/07/2024

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## **1. DOCUMENT CONTROL**

The Standard Operating Procedure (SOP): Classification of Farms was compiled by Department of Forestry, Fisheries and the Environment: Food Safety Office (FSO) of the Directorate Sustainable Aquaculture Management. The SOP is administered by the FSO and will be reviewed and updated as relevant new information becomes available.

A detailed record of all amendments shall be maintained, and the latest version will be made available at the FSO and will be loaded onto the DFFE website. Suggestions for alterations that would significantly improve the document are welcomed. These should be forwarded to the coordinator, Mr John Foord and enquiries can be directed to Mr Mayizole Majangaza (Appendix 1).

## 2. SCOPE

This document covers the procedures for the classification of farms as required in terms of the Aquacultured Marine Fish Food Safety Programme (AMFFSP). The procedures include the provisional and full classification requirements for marine shellfish production facilities and the reporting of the analysis results to the Department of Forestry, Fisheries and the Environment (DFFE). Sampling of the shellfish takes place at various production areas located between Port Nolloth in the Northern Cape and Haga Haga in the Eastern Cape, South Africa.

## 3. BACKGROUND

The Department of Forestry, Fisheries and the Environment (DFFE) is the managing and regulatory authority for the undertaking of aquaculture activities that include farming, harvesting and transporting of fish for wholesale trading stipulated in the permit conditions issued in terms of the Marine Living Resources Act, 1998 (Act No. 18 of 1998) and associated regulations. The Directorate: Sustainable Aquaculture Management (D: SAM) of the Fisheries Branch of DFFE is responsible for the development, management and regulation of a sustainable aquaculture industry that contributes towards job creation, food security, rural development and economic growth. D: SAM aims to achieve the above-mentioned strategic objectives through the development and implementation of relevant enabling legislation, policies and programmes as well as be responsive and compliant to international obligations and agreed standards. The Food Safety Office (FSO) within D: SAM is responsible for the development and management of food safety programmes stipulated in the permit conditions issued in terms of the Marine Living Resources Act, 1998 (Act No. 18 of 1998) including the AMFFSP and the National Residue Control Programme (NRCP). The objectives of the food safety programmes include providing guarantees to domestic and international markets and consumers that South African cultured fish products are safe for human consumption.

The risks to food safety of cultured fish include environmental residues (heavy metals, perfluoroalkyl substances, pesticides, polychlorinated biphenyl, dioxins, polycyclic aromatic hydrocarbons and radionuclides) and veterinary medicine residues (hormones, antibiotics and anthelmintics), the accumulation of biotoxins (Paralytic Shellfish Toxins (PST), Lipophilic Shellfish Toxins (LST) and Amnesic Shellfish Toxins (AST)) and microbiological contamination in shellfish indicated by the presence of *E. coli*.

The classification of shellfish production areas is required prior to the harvesting and marketing of shellfish from the production area to determine the food safety risks to the relevant production areas. The classification is based primarily on microbiological risks as well as environmental contaminants that may impact on the species to be harvested. A sanitary survey shall be carried out for each new production area prior to its approval as a source of shellfish for human consumption or for shellfish to be used in a relaying or depuration facility. The test results and sanitary survey will be used to classify the farm in accordance with the AMFFSP.

## 4. SAMPLING REQUIREMENTS AND SAMPLE SUBMISSION

DFFE are required to determine the official sampling stations from which the samples shall be taken based on potential food safety risks. The sampling stations for the land-based farms shall be located in the production facility or in close proximity to the water intake pipe. The sampling stations for the sea-based farms shall be within the production area close to the source of potential food safety risks.

The species sampled shall be the shellfish species to be cultured or a suitable surrogate as advised by DFFE. Where the culture species is not available in a new production area an alternative species may be used as advised by the DFFE. In the case of bivalves, it may be necessary to place bags containing the culture species in the production area to provide shellfish for testing.

The DFFE has appointed National Regulator for Compulsory Specifications (NRCS) to officially sample the production facilities. The samples shall be taken and transported to the relevant laboratories in

accordance with the Standard Operating Procedure (SOP): The Sampling and Transport of Aquacultured Marine Fish. The samples shall be sent to laboratories approved by the FSO for testing (Appendix 2).

The testing of samples shall be undertaken as outlined in the AMFFSP and the regulatory limits are indicated in the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972) regulations and the associated National Residue Control Plan (NRCP). The results from the laboratories shall be emailed to the Food Safety Office (Email: SAMSanitation@dffe.gov.za) within 24 hours of completing the analysis.

## 5. PROVISIONAL CLASSIFICATION

Should a shellfish farm want to market its products for human consumption, the farm is required to be classified prior to harvesting, which takes a minimum of one year. The farm may, however, request provisional classification based on the following criteria, which takes a minimum of three months:

- 1) For a period of no shorter than three months prior to sale, shellfish shall be sampled weekly from the production area and tested for *E. coli*. A minimum of 12 samples shall be analysed and no more than one sample may be taken per week.
- 2) Within the first three months samples from the farm shall also be tested for:
  - Pesticides (Organophosphate & Organochlorine)
  - Dioxins
  - Dioxin-like and non-dioxin-like polychlorinated biphenyls (PCB).
  - Heavy metals viz. Lead, mercury and cadmium
  - Radionuclides (Caesium 134 and 137)
  - Additional tests required based on potential food safety risks include but not limited to polycyclic aromatic hydrocarbons (PAH) if the farm is near a harbour or port.
- 3) Once the test results are completed DFFE is required to draft a Sanitary Survey Report based on the test results and a survey of the farm surroundings.

Once the farm is provisionally classified, the farm is required to test for PST, LST and AST no longer than one week prior to harvest in accordance with the AMFFSP requirements. The farm is furthermore required to be included in the NRCP and comply with the AMFFSP requirements for routine monitoring.

## 6. FULL CLASSIFICATION

Full classification takes a minimum of 12 months and is based on the following criteria:

- 1) Results of microbiological testing of shellfish samples taken over a period of at least 12 months are required for full classification of the production area.
- 2) A minimum of 30 samples are required to be tested for *E. coli* full classification. The samples shall not be taken more frequently than every two weeks for the final nine months if the farm was provisionally classified. If the farm was not provisionally classified samples for *E. coli* testing shall be taken every two weeks for the 12-month period and the additional 6 samples may also be taken within the 12-month period but no *E. coli* sample may be taken more frequently than once a week.
- 3) Farms are required to test for heavy metals, pesticides, dioxins and PCBs as well as additional tests based on potential food safety risks and tests required by importing country. Samples shall be tested twice within the classification period, including the provisional classification period, and the samples shall be taken at least 6 months apart for the same test.

## 7. REFERENCES

Department of Forestry, Fisheries and the Environment. 2024 Aquacultured Marine Fish Food Safety Programme. Cape Town. Issue 8, 1-67.

National Regulator for Compulsory Specifications. 2024. Procedure: Sampling and Transport of Aquacultured Marine Fish. Cape Town. Issue 2, 1-18.

**Appendix 1: Contact Information**

Food Safety Office  
Directorate: Sustainable Aquaculture Management  
Chief Directorate: Aquaculture Development & Freshwater Fisheries  
Department of Forestry, Fisheries and the Environment  
Sea Point Research Facility  
307 Beach Road  
Sea Point  
8001

**Food Safety Office**

Contact	Email	Cell
Food Safety Office	SAMSanitation@dfpe.gov.za	-
Ms Hellen Ntoampe	HNtoampe@dfpe.gov.za	-
Ms Portia Dwane	PDwane@dfpe.gov.za	066 471 1333
Mr Mayizole Majangaza	MMajangaza@dfpe.gov.za	066 471 1480
Mr John Foord	JFoord@dfpe.gov.za	082 343 8327



**Appendix 2: Laboratories**

<b>Laboratory</b>	<b>Tests</b>	<b>Manager</b>	<b>Telephone</b>	<b>Email</b>	<b>Address</b>
Microchem	Biotoxins Heavy metals (Pb, Hg & Cd)	Mr Rogan van Kerpel	021 465 6996	Rogan.vanKerpel@microchem.co.za	5 Dairy Street Stikland Industrial Cape Town 7530 Tel:
AssureCloud	Biotoxins Heavy metals (Pb, Hg & Cd)	Mr Fikree van Niekerk Reception	021 658 2740 021 492 6652	mogammat.vniekerk@nosa.co.za	3 Hermes Street Paarden Eiland 7405 Cape Town
Mérieux NutriSciences	<i>E. coli</i> Dioxins Dioxin-like PCBs Non-dioxin-like PCBs Perfluoroalkyl substances Heavy metals (Pb, Hg, Cd & As) Pesticides Radionuclides PAH Veterinary medicines	Ms Firoza Jacobs Reception	021 683 8436 021 683 8436	firoza.jacobs@mxns.com	7 Warrington Road Claremont 7708 Cape Town
NECSA	Radionuclides	Mr Deon Kotze  Ms Pamela Moletsane Reception	012 305 5243 082 857 6455 082 937 2511 012 305 5728	deon.kotze@necsa.co.za  pamela.moletsane@necsa.co.za	Elias Motsoaledi Street & Church Street West Ext Pelindaba 0240 Pretoria

PAH – polycyclic aromatic hydrocarbons, PCB – polychlorinated biphenyl, Pb – lead, Hg – mercury, Cd – cadmium, As – arsenic