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CHECK OF WATER

FISHERY ESTABLISHMENTS

(Council Directive 80/778/EEC)

CHECK OF WATER

1. INTRODUCTION

This document refers to :

- Chapter IV, points 1 - 4 of Annex to Council Directive 91/492/EEC (live bivalve molluscs);
- Chapter III, points 1 - 7 of Annex to Council Directive 91/493/EEC (fishery products).

The complete procedure of the control of sea and potable water must be thoroughly documented in the HACCP (Hazard Analysis Critical Control Point) system established by the management.

2. PLAN OF THE WATER DISTRIBUTION

The management of an establishment must be able to account for the source(s) of supply (mains, mains with intermediate storage, surface water or well water) and is responsible for insuring that the water used in the plant is potable. It must be able to demonstrate the water distribution system within the establishment. The official inspector must have access to a reticulation plan which shows pipes and all outlets within the establishment; the outlets themselves must be identified by consecutive numbering so that they can be located on the plan.

3. CHLORINATION SYSTEM

- 3.1 If chlorine is used, it should be added in line by dosing or injection (gas or liquid) prior to intermediate storage, to permit sufficient contact time with the water in order to allow the chlorine to react with the organic matter. The chlorine not combined after 20-30 minutes remains as free residual chlorine available in line to react with whatever contamination present in the piping system (back syphonages, dead-ends, for example). Therefore, the retention tank must have the capacity to retain the water together with the chlorine added for 30 minutes (at least 20 minutes).
- 3.2 The cleaning programme for intermediate storage shall be documented and monitored and be demonstrable.
- 3.3 The products (fish, shrimps, molluscs) intended for export to the European Union shall not be washed, dipped, glazed, or treated with hyperchlorinated water. Pending definition of a level by the European Scientific Committee, it is recommended to use, in the case of an in-plant chlorination system, the same chlorine level as authorised by the legislation in the third country for potable water intended for direct human consumption, and distributed by the public network (municipality ...).
- 3.4 The chlorine content must be checked regularly (at least once a day). An alarm system is recommended to be applied to ensure the functioning of the chlorination system.

4. EXAMINATIONS

4.1 Microbiological examination

a) *frequency*

- Initial analysis

When an establishment opens, or when it uses for the first time a new source of water (new well for example) or when a limited range (less than Table E of Annex I to Directive 80/778/EEC only) of microbiological parameters has been investigated in the past, an initial analysis shall be carried out.

- Routine tests follow the initial analysis with the frequency:

* public supply without intermediate storage: at least once per year from various representative outlets within the plant;

* public supply with intermediate storage and/or private supply: at least once per month from various representative outlets within the plant;

b) *standards*

- initial analysis according to Annex I, Table E of Directive 80/778/EEC No. 57, 58, 59, 60, and 61;

- routine tests according to Annex I, Table E of Directive 80/778/EEC for only;

- No 57 - total coliforms;

- No 61 - total counts at 22°C (incubation min. 72 hrs);

- total counts at 37°C (incubation min. 48 hrs).

For sea water, the parameter 61 (Total bacteria counts) of Table E of Annex I to Directive 80/778/EEC is not checked.

c) *exceeding standards*

If the results of the initial or the routine tests are unsatisfactory an immediate investigation and further sampling must be carried out. The sample must be examined immediately using all parameters as laid down in Annex I, Table E of Directive 80/778/EEC.

Two consecutive samples should not be positive for coliform organisms. If the samples show the presence of *E. coli*, *faecal streptococci* or *sulphite reducing clostridia*, the water of the said source(s) must not be used until the contamination has been eliminated.

4.2 Organoleptic and physicochemical examination, examination for undesirable and toxic substances

a) *frequency*

Following an initial analysis, the frequency of routine analysis are indicated below for the water coming :

- from private supplies, at least once per annum;
- from public supplies, it is sufficient to show that the required examination has been carried out by the public authorities (municipality ...).

b) *standards*

These examinations cover, at least once, all parameters prescribed in Annex II, Table A, Columns A, B, C and D to Directive 80/778/EEC. On routine checks, examinations carried out, in particular on chemical parameters, must concentrate on those which proved to be critical, aiming to eliminate sources of contamination. Some physical checks such as pH, turbidity, organic matter should be checked even far more frequently than once a year in case of chlorination.

4.3 Results of all examinations must be retained for at least 2 years.

5. COLLECTION OF SAMPLE FROM A TAP

5.1 The sample is collected in a sterile bottle. Run the tap to be sampled for long enough to completely flush the pipe supplying the tap, and in any case for 2 - 3 minutes. Before a water sample is drawn from the tap, flame the tip of the tap using spirit and allow water to flow for 5 minutes before collection. In the case where the test is undertaken 3 hours or more after sampling, the bottles must be kept in ice. If a sample is to be taken from a chlorinated water supply, it is important that any trace of chlorine should be neutralised immediately after collection. A crystal of sodium thiosulphate or 0.1 ml. of 2% solution of sodium thiosulphate introduced into the sampling bottle prior to sterilisation serves to neutralise the chlorine.

5.2 The samples must be taken from various outlets within the establishment. A rotation is organised between the identified outlets from which the water is in contact with the product. Ice shall also be regularly tested.

5.3 The result of the examination must bear the identification of the outlet where the sample is collected from.

6. OFFICIAL AND PRIVATE CHECKS

- 6.1 For the initial analysis, and for at least one routine analysis per year, the sample (organoleptic, physicochemical, undesirable and toxic substances, microbiological parameters) is collected by an official person and is analysed in an official laboratory.
- 6.2 The other routinely taken samples can be collected by the management of the establishment and analysed in the in-plant laboratory or an external private accredited laboratory. These examinations are carried out under the supervision of the official inspector.