

# codex alimentarius commission



FOOD AND AGRICULTURE  
ORGANIZATION  
OF THE UNITED NATIONS

WORLD  
HEALTH  
ORGANIZATION



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Agenda Item 3

CX/FFP 08/29/3-Add.1  
ORIGINAL LANGUAGE ONLY

**JOINT FAO/WHO FOOD STANDARDS PROGRAMME  
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS  
Twenty-ninth Session  
Trondheim, Norway  
18-23 February 2008**

**DRAFT CODE OF PRACTICE FOR FISH AND FISHERY PRODUCTS (LIVE AND RAW BIVALVE  
MOLLUSCS, LOBSTERS AND CRABS AND RELEVANT DEFINITIONS)  
COMMENTS AT STEP 6  
(European Community)**

The European Community and its Member States (ECMS) are pleased to submit the following comments in view of preparing the discussions at the next session of the CCFFP.

**Section 2 Definitions for the purpose of this code**

**Point 2.3 LIVE AND RAW BIVALVE MOLLUSCS**

The ECMS suggest to add a definition for depuration centres as follows:

*Depuration centre means any approved establishment for the depuration of live bivalve molluscs.*

**Section 7 Live and raw bivalve molluscs**

**Point 7.1 GENERAL REMARKS: ADDITION TO THE PRE-REQUISITE PROGRAMME**

The first sentence of para 3 and 6 should be modified to take into account the consumption of live bivalve molluscs:

*The main hazard known for the production of bivalve molluscs is microbiological contamination of waters in which they grow, especially when the bivalve molluscs are intended to be eaten **live or** raw.*

*Especially when the bivalve molluscs need to undergo relaying or depuration to be eaten **live or** raw ...*

In para 3: Azaspiracid is the name of the substance and not the associated symptom. The sentence should therefore be modified as follows:

*Biotoxins produced by some algae can cause various forms of serious poisoning like diarrhetic shellfish poisoning (DSP), paralytic shellfish poisoning (PSP), neurotoxic shellfish poisoning (NSP), amnesic shellfish poisoning (ASP) or **poisoning caused by** Azaspiracid (AZP).*

2<sup>nd</sup> sentence of para 4:

*To control the hazards... molluscs safety. The identification, classification and monitoring of **these waters these areas** is a responsibility for competent authorities ....*

Last sentence of para 4: It is necessary to precise that harmful substances should not be present in the edible parts of the animals:

*Harmful chemical substances should not be present **in the edible part** in such amounts that the calculated dietary intake exceeds the permissible daily intake.*

3rd sentence of para 4: A single indicator for faecal contamination should be proposed. The criteria «**faecal coliform**» or «total coliforms» should be deleted in this paragraph in **Appendix IV (7.2.2, 7.2.2.1, etc.)** and **Appendix V**, because «**Escherichia coli**» is a much better indicator for faecal contamination. «*E. coli*» is also the criteria chosen by WHO in the guidelines for potable water. Moreover, many total coliforms have no faecal origin:

*To control the hazards, ... .. and primary producers. ~~E. coli/faecal coliforms or total coliforms~~ may be used as an indicator for the possibility of faecal contamination. ...*

Para 5: It should be underlined that live bivalve molluscs destined to purification and relaying can only be marketed by a distribution centre or establishment; this appears in the chart (7.1) but should be more explicit.

### **Point 7.2 CLASSIFICATION AND MONITORING OF GROWING AREAS**

*Salmonella* spp should be added as an example of «enteric bacterial pathogens», Heavy metals (lead, cadmium, mercury) as example for «chemical contaminants».

- *enteric bacterial pathogens (e.g. Salmonella spp.);*
- *enteric viral pathogens (e.g. Norovirus, viruses causing hepatitis);*
- *naturally occurring bacterial pathogens (e.g. Vibrio spp.);*
- *biotoxins (e.g. ....AZP)*
- *chemical contaminants (e.g. heavy metals such as lead, cadmium or mercury)*

#### **Point 7.2.1 CLASSIFICATION OF GROWING AREAS**

Para 6: **irradiation** of bivalve molluscs **is not allowed by the EC legislation**

*Classified growing areas should be clearly defined by the official agency having jurisdiction as either:*

- *suitable for harvesting for direct human consumption, relaying in acceptable water or depuration in an approved depuration centre or approved processing to reduce or limit target organisms e.g. heat treatment, **irradiation where authorised**, hydrostatic pressure, IQF; or*
- *non-suitable for growing or harvesting bivalve molluscs.*

#### **Point 7.2.2 MONITORING OF GROWING AREAS**

Para 1 and 2<sup>nd</sup> indent of para 6: The risk for human public health is linked to the consumption of bivalves and it is not sufficient to only carry out an analysis of water. The ECMS are indeed of the opinion that both examination of mollusc's flesh and monitoring of the water should be carried out, as only one of these two measures is not sufficient to guarantee **an appropriate level of protection** to the consumer.

*Growing areas should be routinely monitored for changes in water quality and ~~for~~ bivalve molluscs quality, and sub-standard areas patrolled to prevent harvesting for purposes other than that established by the official agency.*

*The bivalve molluscs harvested meet the end product specification. This can be determined by examination of molluscs flesh ~~or through adequate monitoring of the water.~~*

1<sup>st</sup> and 2<sup>nd</sup> indent of para 5: It is necessary to keep the possibility to adapt the sampling frequency to the level of contamination and to the associated health risk in a certain area. The 2<sup>nd</sup> indent is in contradiction with 7.2.2.2

*- Classification/reclassification of growing areas, by sanitary survey, ~~monitoring of E. coli/faecal coliforms or total coliforms~~ within two or three categories according to*

requirements at an appropriate frequency based on the likely variation of contamination and on the risk of contamination and other sanitary control measures as applicable (see 7.2.2.2).

~~—Classification/reclassification of growing areas by monitoring of pathogens at an appropriate frequency based on the risk of contamination in bivalve mollusc meat (see 7.2.2.2)~~

3<sup>rd</sup> indent of para 5:

- Closure/Reopening of ~~growing waters~~ growing areas by the monitoring ....

#### **Point 7.2.2.1 E. COLI/FAECAL COLIFORMS/TOTAL COLIFORMS**

1<sup>st</sup> para:

All growing areas should be monitored for the presence of E. coli/~~faecal coliforms or total coliforms~~ at an appropriate frequency based on the likely variation of contamination and the risk of contamination.

2<sup>nd</sup> para:

The last sentence dealing with bacteriophage and viral detections should be amended as follows:

**Other methods such as bacteriophage and viral detection ~~could~~ **might** also be used as indicators for pathogens if and when validated analytical methods become available in the future.**

#### **Point 7.2.2.2 PATHOGEN MONITORING**

2<sup>nd</sup> sentence:

Shellfish sanitation program... pathogens. However, where there has been shellfish borne outbreak caused by an identified such as Salmonella and others (pathogenic Vibrio and virus), monitoring the ~~shellfish meats~~ bivalve molluscs may be appropriate as part of the process of ~~reopening~~ closure/reopening the affected harvest area. ....

#### **Point 7.2.2.3 MARINE BIOTOXIN CONTROL**

Para 3: One negative result is not enough. Numerous observations and experiments show that two consecutive negative results are needed.

*The official agency having jurisdiction should close immediately and effectively patrol affected areas when acceptable levels are exceeded in edible portions of bivalve molluscs meats. These areas should not be opened before toxicological investigation has made clear that the bivalve molluscs meat is free from hazardous amounts of biotoxins, **through, at least, two consecutive test results below the regulatory limits separated at least 48 hours.***

Bullets of para «Spatial representational sampling»: group bullets 1 and 6 as they are linked.

- Hydrography, known upwellings, fronts, current patterns and tidal effects which may trigger advection of offshore toxic micro-algal blooms into growing areas.
- Access to sampling stations in all weather conditions during harvesting.
- Desirability of toxin and micro-algal sampling at the same sampling station.
- In addition to primary (routine) stations, the need for secondary (complementary) and offshore stations.
- Existence of in-situ growth (for example, toxic micro-algae from cyst beds).
- ~~The advection of offshore toxic micro-algal blooms into growing areas.~~

#### **Point 7.3 HARVESTING AND TRANSPORTATION OF LIVE BIVALVE MOLLUSCS**

7th bullet, last sentence: water used to clean the live bivalve molluscs could be reused if treated.

- Bivalve molluscs should be free from excessive..... molluscs already cleaned. The water could ~~should not~~ be re-circulated after being treated properly to become clean.

**Point 7.4 RELAYING**

1st bullet: the management of the relaying zone should fulfil the "all in all out" principle.

*Relaying operations should be strictly supervised by the official agency having jurisdiction to prevent ... .... These areas should be adequately separated from the bivalve molluscs in adjacent waters to prevent cross contamination and commingling. **The "all in, all out" system must be used in order to avoid cross contamination***

**POINT 7.5 DEPURATION**

Para 1, 2<sup>nd</sup> sentence: the efficiency of depuration to eliminate vibrios is questionable.

*Depuration alone is not suitable for cleansing bivalve molluscs from more heavily contaminated areas or areas subject to contamination by hydro-carbons, heavy metals, pesticides, **viruses, vibrio** or biotoxins.*

Para 3: Depuration in reproduction period should be inadvisable rather than forbidden.

*For natural functioning and therefore depuration to occur it is essential that the molluscs have not been overstressed or damaged during harvesting or handling prior to depuration and ~~are~~ **not should not be** in a seasonally weak or spawning condition.*

3rd sentence of 4th bullet: Washing with potable water could lead to stress for the bivalve molluscs.

*Dead or damaged ... ...commensal organisms. If necessary the bivalve molluscs should be washed with clean sea water ~~or potable water~~ before the depuration process.*

Page 62, 5th bullet: *E.coli* is the agreed indicator organism and therefore the term "faecal coliforms" should be deleted the last sentence should be clarified.

- *The length of the period of depuration should be adapted.....depuration parameters. It should be taken into account that viruses and Vibrio spp. are more persistent during depuration than the indicator bacteria mostly used for microbiological monitoring (*E. coli* ~~and faecal coliforms~~) **and that the reducing of the number of indicator bacteria does not always reflect the real situation as regards contamination by viruses and Vibrio is far from being precisely technically controlled.***

**POINT 7.6 PROCESSING OF BIVALVE MOLLUSCS IN A DISTRIBUTION CENTRE OR AN ESTABLISHMENT**

Page 64, last bullet: Water treatment systems should be approved by the competent authority **to ensure their efficiency.**

- *Recirculating wet storage systems must contain approved water treatment systems.*

Point 7.6.4.2, 3rd bullet: this recommendation should be enlarged to cover freezing:

- *Shucked and post harvest treated product should be packed and chilled **or frozen** as soon as possible.*

Point 7.6.4.2, 4th bullet: It would be advisable to refer to the section dealing with freezing (section 8.3):

- *Freezing should take place quickly (**see section 8.3**). Slow freezing will damage meat.*

Point 7.6.5.2: Storage temperatures (frozen or refrigerated products) should be indicated for raw treated products.

Point 7.6.6: temperatures should be mentioned for the transport of bivalve molluscs.

**POINT 7.7 PROCESSING TO REDUCE OR LIMIT TARGET ORGANISMS**

The introductory paragraph could be clarified as follows: « As with all live and raw bivalve molluscs, these bivalve molluscs must meet all microbiological criteria associated with traditional harvest water controls designed to prevent faecal contamination and resulting introduction of enteric pathogens as well as toxins and other contaminants. However, these ~~traditional harvest water~~ **growing areas** controls are not designed for control of pathogens that are independent from faecal contamination. Processing to reduce or limit target microorganisms may include the application of low heat, hydrostatic pressure (e.g., 60K lb/6 min.), irradiation, and individual quick freezing. »

Last sentence of the introductory paragraph: Irradiation of bivalve molluscs is forbidden by the EC legislation.

*Processing to reduce or limit target microorganisms may include the application of low heat, hydrostatic pressure (e.g., 60K lb/6 min.), irradiation **where authorised**, and individual quick freezing.*

#### **POINT 7.9 DOCUMENTATION**

When a consignment of bivalve molluscs reaches a distribution centre or establishment and has been subject to depuration or relaying, the accompanying document should contain the references of these operations: date and duration, name of the depuration establishment, identity of the responsible. The destination of the batch is also necessary for the transport.

*Depuration centres or tanks and distribution centres and establishments should only accept lots of live bivalve molluscs with documentation issued by or accepted by the official agency having jurisdiction. This document should contain **at least** the following information:*

- *the gatherer's identity and signature;*
- *the date of harvesting;*
- ***common and scientific names-or species** and quantity of bivalve molluscs ;*
- ***the location of the growing area and the health status of this area (suitable for harvesting for direct human consumption, suitable for relaying, suitable for depuration, suitable for approved processing to reduce or limit target organisms) ;***
- ***the destination of the batch ;***
- ***if appropriate the date and duration of depuration and the responsible's identity and signature;***
- ***if appropriate the date and duration of relaying, the location of the relaying area and the responsible's identity and signature.***