

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



JOINT OFFICE: Viale delle Terme di Caracalla 00153 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

Agenda Item 7

CX/FH 09/41/7

Add.2

Original

Language Only

November 2009

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD HYGIENE

Forty-first Session

The Loews Coronado Bay Hotel, San Diego, United States of America

COMMENTS ON THE

PROPOSED DRAFT ANNEX ON THE CONTROL MEASURES FOR *VIBRIO* *PARAHAEMOLYTICUS* AND *VIBRIO VULNIFICUS* IN MOLLUSCSAN SHELFISH AT STEP 3

LATE

COMMENTS SUBMITTED BY:

**EUROPEAN COMMUNITY, INDIA, JAPAN, NEW ZEALAND, PERU, PHILLIPINES,
THAILAND & INTERNATIONAL ASSOCIATION OF CONSUMER FOOD
ORGANIZATIONS (IACFO)**

EUROPEAN COMMUNITY

General comments

The European Community and its Member States (ECMS) congratulate Japan for the excellent work carried out by the working group which met in Kyoto in spring 2009. Very important progress has been achieved and the proposed draft Annex already addresses the most important key points to ensure the safety of molluscan shellfish from *Vibrio parahaemolyticus* and *Vibrio vulnificus* contamination.

Specific comments

The ECMS wish to make the following specific comments on the "Proposed Draft Annex on the Control Measures for *Vibrio parahaemolyticus* and *Vibrio vulnificus* in Bivalve Molluscs" in Appendix II to document CX/FH 09/41/7.

2.1 SCOPE

Paragraph 5 and footnote 4: Add the scientific name of bloody clams in footnote 4 which would read:

"Risk assessment of *Vibrio parahaemolyticus* in *Anadara granosa* (bloody clams)."

2.2 DEFINITIONS

Paragraph 6: Modify the definition of post-harvest processing in paragraph 6 as follows:

"**Post-harvest processing:** processes (e.g. ~~freezing~~, high pressure and mild heating) **or treatments (e.g. freezing)** intended to significantly reduce or limit..."

Rationale: Freezing is not a process but a treatment.

PART I

3.1 ENVIRONMENTAL HYGIENE

Paragraph 10: Add "*Crassostrea virginica*" in the 3rd sentence of paragraph 10 to reflect in which species the data were collected. It would read:

"...*V. parahaemolyticus* grows faster and at colder temperatures than *V. vulnificus* (growth rates for *V. parahaemolyticus* and *V. vulnificus* in **Crassostrea virginica** are provided in table 1)

Paragraphs 14 and 15: Move the last indent of paragraph 15 to the end of the 1st indent of paragraph 14 which would read as follows:

"The number of sporadic illnesses and outbreaks of *V. parahaemolyticus* and *V. vulnificus* associated with bivalve molluscs harvested from a distinct hydrographic area, and whether these illnesses are indicative of an annual reoccurrence **or an unusual increase;**"

Rationale: The initial step in reacting to unusual increase in illness is to consider controls in a harvest area.

3.2 HYGIENIC PRODUCTION OF FOOD SOURCES

Paragraph 17, 2nd indent: Replace "will" with "should". The indent would read:

"Where possible, sink bivalve molluscs below the thermocline where the growth of pathogenic *Vibrio* spp. ~~will~~ **should** not occur."

Rationale: This measure is based on a single study and it is not confirmed that it works in all circumstances.

3.3 HANDLING, STORAGE AND TRANSPORT

Paragraphs 18 and 19: Switch the order of paragraphs 18 and 19 and make certain editorial amendments to paragraph 19. Paragraphs 18 and 19 would read as follows:

"18 Bivalve molluscs destined to be consumed live or untreated raw should be handled separately from those destined for post-harvest processing or other treatment.

19 The following control measures during handling, storage and transport of harvested bivalve molluscs should be applied as necessary based upon the factors identified in Section 3.1. It is important that any control for *V. parahaemolyticus* and/or *V. vulnificus* is not less than that required for the control of any other pathogenic organisms **that may be present** in bivalve molluscs.

- Limit ~~time from harvest or first~~ exposure to ambient air temperature **from time of harvest** to initial refrigeration (based on modelling and sampling to achieve the appropriate level of protection).
- Minimize time and temperature conditions that would allow the growth of *V. parahaemolyticus* and *V. vulnificus* during wet storage of bivalve molluscs.

- Bivalve molluscs are to be transported at ~~the lowest~~ temperatures **that do not permit growth of** ~~tolerable for the *Vibrio* spp~~ *V. parahaemolyticus* and *V. vulnificus*. The time between refrigeration and reaching a temperature that does not support growth of *V. parahaemolyticus* and *V. vulnificus* should be minimized when the temperature of the bivalve molluscs exceeds the minimum growth temperature for pathogenic vibrios, and the time between harvest and raw consumption should be limited appropriately or the product should undergo additional treatment to reduce **pathogenic** *Vibrio* levels. Special attention should be paid to maintaining the characteristics of bivalve molluscs to be consumed live following Section 7.3 of the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003).
- It may be useful to **periodically** survey levels ~~periodically~~ of *V. parahaemolyticus* and *V. vulnificus* in bivalve molluscs at various points in the distribution chain to verify effectiveness of recommended controls.
- Anyone involved in the handling, storage or transport of bivalve molluscs should be educated regarding the relationship between temperature control and growth of ~~pathogenic~~ *V. parahaemolyticus* and *V. vulnificus* and trained regarding proper handling, storage and transport."

Rationale: Separation of bivalve molluscs destined for direct consumption from those destined for processing is the key hygienic measure in handling and it should therefore be mentioned first.

5.1 CONTROL OF FOOD HAZARDS

Paragraph 23: Add "significantly" in the 1st sentence which would read:

"Any measure or practice selected to **significantly** reduce or limit but not completely eliminate..."

5.2 KEY ASPECTS OF HYGIENE CONTROL SYSTEMS

Add a new heading 5.2.3 and paragraph 25 Bis as follows:

"5.2.3 Microbiological cross contamination

25 Bis Control measures should be in place to avoid cross contamination between bivalve molluscs destined to be consumed live or untreated raw and those destined for post-harvest processing or other treatment."

Rationale: Microbiological cross contamination should be included under the key aspects of hygiene control systems.

PART II

5.1 CONTROL OF FOOD HAZARDS

Paragraph 45: Add "significantly" and "completely" in the 3rd sentence which would read:

"Any measure or practice to **significantly** reduce or limit but not **completely** eliminate..."

9.3 LABELLING

Paragraph 54: Add "thorough" in the phrase in brackets at the end of the paragraph. It would read:

"...(e.g. indicated appropriate and **thorough** cooking before consumption)"

Rationale: It is important to specify where thorough cooking must be achieved, especially in the case of consumers with underlying chronic diseases.

INDIA

India supports the draft Annex on Control Measures for *Vibrio parahaemolyticus* and *Vibrio vulnificus* in Molluscan Shellfish. .

JAPAN

Japan proposes the following amendments on this draft Annex in order to remove redundancy or contradicted descriptions and to refine the text:

Japan would like to suggest that a physical working group (to be led by Japan), which will meet in San Diego prior to the plenary of the 41st CCFH, should review both the main document on *Vibrio* and this annex because they should be in one package to read together.

INTRODUCTION

1. Bivalve molluscs are well documented vehicles for transmission of illnesses caused by *Vibrio* spp., especially *Vibrio parahaemolyticus* and *Vibrio vulnificus*. Bivalve molluscs are unique in that they are harvested, handled and consumed differently from most other seafood products and therefore present unique risks and control options. They are inherently riskier than other seafood because of their filter feeding activity that concentrates pathogens present in the water. They are often consumed live and raw or after insufficient cooking. According to recently completed FAO/WHO risk assessments for both of these pathogens in many countries, bivalve molluscs are often kept alive out of water for days after harvest at ambient temperatures which allows the growth of *V. parahaemolyticus* and *V. vulnificus*.

SECTION I – OBJECTIVES

2. The purpose of this Annex is to provide guidance on control measures that minimize the risk arising from the presence of pathogenic *V. parahaemolyticus* and *V. vulnificus* in bivalve molluscs. It deals with the means to minimize and/or prevent the introduction/contamination and/or the growth of these pathogens, and adequate partial treatment of bivalve molluscs before consumption. Control measures required for these pathogens are similar but not the same to the extent that they have different characteristics on the growth and survival. The control measures outlined in this Annex reflect these differences, where they exist. This Annex further provides information that may be of interest to regulatory authorities, the food industry, consumers, and other interested parties.

SECTION II – SCOPE, DEFINITION AND USE OF THE DOCUMENT

2.1 SCOPE

5. This Annex covers bivalve molluscs that are intended for consumption in a live, raw, or partially treated state,. Bivalve molluscs consumed after a thorough treatment is not covered in this annex, noting that the control measures presented in the main documents are sufficient to control the safety. The target microbiological hazards of this Annex are only pathogenic *V. parahaemolyticus* and *V. vulnificus*. This Annex provides guidance applicable throughout the food chain, from primary production to final consumption of bivalve molluscs and particular guidance on post-harvest processing. Controls measures presented in Part I apply to live and raw bivalve molluscs (including those that receive post-harvest processing), while those in Part II apply to bivalve molluscs consumed after partial treatment.

2.2 DEFINITIONS

6. For the purpose of this annex, the following definitions apply:
Definitions contained in the *Recommended International Code of Practice-General Principles of Food Hygiene* (CAC/RCP 1-1969), the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003) and the Proposed Draft *Code of Hygienic Practice for Pathogenic Vibrio spp. in Seafood* (at Step 3); and live and raw bivalve molluscs production definitions defined in the *Codex Standard for Live and Raw Bivalve Molluscs* (CODEX STAN 292-2008).

Post-harvest processing: processes (e.g. freezing, high pressure and mild heating) intended to significantly reduce or limit but not completely eliminate *V. parahaemolyticus* and *V. vulnificus* while

essentially retaining the sensory characteristics of live bivalve molluscs (Section 7.7 of the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003)).

2.3 USE OF THE DOCUMENT

7. This Annex is supplemental to and should be used in conjunction with the *Recommended International Code of Practice - General Principles of Food Hygiene* (CAC/RCP 1-1969), the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003), Hygiene section of the *Standard for Live and Raw Bivalve Molluscs* (CODEX STAN 292-2008) and the Proposed Draft *Code of Hygienic Practice for Pathogenic Vibrio spp. in Seafood* (at Step 3). This Annex may require modifications and amendments in use, taking into account such factors as regional differences in the prevalence of pathogenic strains of *V. parahaemolyticus* and *V. vulnificus* and the epidemiological data, including the susceptibility of the population. .

8.

PART I: Bivalve molluscs consumed live and raw

SECTION III - PRIMARY PRODUCTION

3.1 ENVIRONMENTAL HYGIENE

10. The control measures described in this section generally apply to pre-harvest environmental conditions and practices during and immediately following harvest, typically while under the control of the harvester. Effective control measures for *V. parahaemolyticus* and *V. vulnificus* typically require an evaluation in terms of risks associated with environmental factors in the harvesting area and harvesting practices based on epidemiology and environmental conditions (i.e. air and water temperature, and salinity). An important element to be considered in estimating risk is that *V. parahaemolyticus* grows faster and at colder temperatures than *V. vulnificus* (growth rates for *V. parahaemolyticus* and *V. vulnificus* are provided in Table 1). Predictive tools using these environmental monitoring parameters and growth rates as inputs have been developed based on the FAO/WHO risk assessments and are available to estimate corresponding *V. parahaemolyticus* and *V. vulnificus* levels and risk.
11. In cases where predictive models are used to estimate the concentration and risks of pathogenic *Vibrio* spp. in seawater and/or bivalve molluscs based on air and water temperatures and/or salinity, their accuracy would be enhanced by incorporating local data on levels of total and pathogenic *V. parahaemolyticus* and *V. vulnificus* and growth in local bivalve spp. Factors such as hydrodynamic effects (e.g. currents, tides, hurricanes and rainfall) and sunlight influences the levels of *Vibrio* spp. The dose response model used in the predictive tool may need modifications based on epidemiology, as regional difference exists in the prevalence of pathogenic strains of *V. parahaemolyticus* and *V. vulnificus* including attack rate relative to exposure to *V. parahaemolyticus* strains occur in harvesting areas concerned.
12. Monitoring of bivalve molluscs at harvest for the levels of total *V. vulnificus* and total and pathogenic *V. parahaemolyticus* should be conducted to determine the regional and seasonal variation. Prevalence of pathogenic strains of *V. parahaemolyticus* and *V. vulnificus* and the epidemiological data, including the susceptibility of the population, should be considered. This information and some factors articulated in para. 15 are useful for model inputs and evaluation of model outputs and application of appropriate controls.
15. The competent authority should inform the producers of the control measures contained in Sections 3.2 (HYGIENIC PRODUCTION OF FOOD SOURCES), 3.3 (HANDLING STORAGE AND TRANSPORT) and 5.1 (CONTROL OF FOOD HAZARDS) and 5.2 (KEY ASPECTS OF HYGIENE CONTROL SYSTEMS) of this Annex when at least:
 - Levels of *V. parahaemolyticus* and/or *V. vulnificus*, or environmental parameters exceed testing/monitoring criteria that are based on risk assessment, if applicable.
 - An unusual increase of *Vibrio* spp. illnesses is reported.
16. The activities described in this section should be implemented by producers in cooperation with the regulatory authority having jurisdiction.

3.3 HANDLING, STORAGE AND TRANSPORT

18. During handling, storage and transport of harvested bivalve molluscs, the following control measures should be applied as necessary based upon the factors identified in Section 3.1: • Limit time from harvest or first exposure to ambient air temperature, to initial refrigeration based on modeling and sampling to achieve the appropriate level of protection.

- Minimize time and temperature conditions that would allow the growth of *V. parahaemolyticus* and *V. vulnificus* during wet storage of bivalve molluscs.
- Bivalve molluscs are to be transported at the lowest temperature tolerable for the *Vibrio* spp. The time between refrigeration and reaching a temperature that does not support growth of *V. parahaemolyticus* and *V. vulnificus* should be minimized when the temperature of the bivalve molluscs exceeds the minimum growth temperature for pathogenic vibrios, and the time between harvest and raw consumption should be limited appropriately or the product should undergo additional treatment to reduce *Vibrio* levels. Special attention should be paid to maintaining the characteristics of bivalve molluscs to be consumed live following Section 7.3 of the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003).
- It may be useful to periodically survey levels of *V. parahaemolyticus* and *V. vulnificus* in bivalve molluscs at various points in the distribution chain to verify effectiveness of recommended control measures.
- Anyone involved in the handling, storage or transport of bivalve molluscs should be educated in the relationship between temperature control and growth of pathogenic *V. parahaemolyticus* and *V. vulnificus* and trained in proper handling, storage and transport.

19. Bivalve molluscs destined to be consumed live or untreated raw should be handled separately from those destined for post-harvest processing or other treatment to avoid cross contaminations.

SECTION V - CONTROL OF OPERATION

5.1 CONTROL OF FOOD HAZARDS

22. The control measures described in this section generally apply to post-harvest handling and processing. Control of *V. parahaemolyticus* and *V. vulnificus* typically requires the stringent application of Good Hygienic Practices and other supportive programs. These prerequisite programs, together with HACCP, can provide a sound framework for the control of *V. parahaemolyticus* and *V. vulnificus* in bivalve molluscs.

23. Any control measure or practice selected to reduce or limit but not completely eliminate *V. parahaemolyticus* and *V. vulnificus* in bivalve molluscs (e.g. freezing, high pressure, mild heating), should be adequately validated to ensure that the control measure is effective. They should also be approved by the competent authority. Such validated control measures/practices should be implemented under the HACCP system.

V. parahaemolyticus is generally more resistant than *V. vulnificus* to any given treatment. Therefore, a process that is effective for *V. vulnificus* may not be as effective for *V. parahaemolyticus*.

PART II. BIVALVE MOLLUSCS CONSUMED IN PARTIALLY TREATED STATES

SECTION III - PRIMARY PRODUCTION

3.2 HYGIENIC PRODUCTION OF FOOD SOURCES

39. Refer to Section 3.2 of the *Recommended International Code of Practice-General Principles of Food Hygiene* (CAC/RCP 1-1969), Section 7 of the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003) and Section 3.2 of the Proposed Draft *Code of Hygienic Practice for Pathogenic Vibrio spp. in Seafood* (at Step 3).

- The control measures described in Section III (PRIMARY PRODUCTION) of PART I should be implemented to achieve at least an equivalent level of protection for bivalve molluscs to be consumed live or raw despite that bivalve molluscs concerned are to be consumed after partial treatment.

3.3 HANDLING, STORAGE AND TRANSPORT

41. The control measures described in Section III (PRIMARY PRODUCTION) of PART I should be implemented. The combination of measures of the treatment and those described in Section III of this part should achieve at least an equivalent level of protection to the level of protection provided for bivalve molluscs in Section III of PART I. Bivalve molluscs destined for partial treatment should be handled and distributed separately from those to be consumed live, untreated raw or after post-harvest processing.:

PART II applies only to products which are partially treated, excluding post-harvest processing. For products in thoroughly treated state, refer to relevant parts of the Good Hygienic Practices as specified in the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969), Code of Practice for fish and fishery products (CAC/RCP 52-2003) and other applicable Codex documents as those are generally suitable to control *V. parahaemolyticus* and *V. vulnificus* in fully cooked bivalve molluscs.

NEW ZEALAND

New Zealand supports the development of an Annex on the Control Measures for *Vibrio parahaemolyticus* and *Vibrio vulnificus* in Bivalve Molluscan Shellfish as this will address specific risk management options for this particular hazard/product combination.

Following the completion of the control measures for *V. parahaemolyticus* and *V. vulnificus*, New Zealand suggests that it may be more appropriate for CCFP to consider whether this information should be incorporated into either the existing Codex Standard for Live and Raw Bivalve Molluscs (Codex Stan 292-2008) or the Code of Practice for Fish and Fishery Products (CAC/RCP 52-2003) rather than as an annex to the Draft Code of Practice for Pathogenic *Vibrio* species in Seafood.

Report of the Physical Working Group

Paragraph 13 - New Zealand supports the recommendation from the physical working group to CCFH to conduct further validation of predictive models based on the FAO/WHO risk assessment that can be applied by member countries as part of their risk analysis.

Appendix II – Main text

2.1 Scope

Paragraph 5 – the draft proposed annex is applicable throughout the food chain, from primary production through to final consumption. New Zealand suggests that the different stages of the food chain should be included in the sentence, thus “This annex is applicable throughout the food chain, from primary production through to final consumption ([i.e. primary production, harvesting, processing, packing, distribution and retail](#)).”

3.1 Environmental Hygiene

Paragraph 14, bullet point 3 – This point provides the minimum growth temperatures for *V. parahaemolyticus* (10°C) and *V. vulnificus* (13°C) however it is important that the temperatures employed do not compromise the safety of the bivalve molluscan shellfish with respect to other pathogenic micro-organisms or the temperature requirements in the Code of practice for fish and fishery products (CAC/RCP 52-2003) to ensure that seafood are kept chilled between 0 and 4°C.

3.2 Hygienic Production of Food Sources

Paragraph 17, second bullet point – New Zealand suggests that the term ‘sink’ [bivalve molluscs] may not be a commonly used term and suggests: “Where possible [lower](#) bivalve molluscs below the thermocline [to prevent the growth of pathogenic *Vibrio* spp.](#)”

3.3 Handling, storage and transport

Paragraph 18, bullet point 1 – provide a reference to the data included in Table 1. Predicted temperature-specific *V. parahaemolyticus* and *V. vulnificus* growth rates and doubling times in oysters for calculating cumulative growth based on hourly temperature observations.

PERU

The following changes or additions are proposed:

- The following could be taken into account in the introduction:

Some species are primarily associated with gastrointestinal illness (*V. cholerae* and *V. parahaemolyticus*), while others may cause non-intestinal illness, such as septicemia (*V. vulnificus*).

In tropical and temperate climate regions, the *Vibrio spp.* that cause illness are naturally present in the marine, coastal and estuarine (brackish) environments, and are very abundant in estuaries. It has also been shown that in several parts of the world there is a positive correlation between water temperature and the numbers of *Vibrio*. On the other hand, according to data presented by the United States and Denmark in the recent 40th Meeting of the Food Hygiene Committee, there is a positive correlation between water temperature and the numbers of isolated *Vibrio* that are pathogenic to humans, and between water temperature and the number of reported human infections. This correlation is especially conspicuous in the case of *V. parahaemolyticus* and *V. vulnificus*.

- In number 11, it should be taken into account that the factors that affect the prevalence of pathogenic *V. parahaemolyticus* in the environment are temperature, like, for example, the Rate of development of *V. parahaemolyticus* in oysters at temperatures other than 26°C, making temperature the potential variable.

PHILLIPINES

The Philippines supports the advancement of the draft guidelines to step 4 as well as the further development of the web-based decision tool undertaken by FAO/WHO and JEMRA.

AGENDA ITEM NO. 7 - Proposed Comments on the Proposed Draft Annex on the Control Measures for *Vibrio parahaemolyticus* and *Vibrio vulnificus* in Molluscan Shellfish at Step 3

Reference:

CX/FH 09/41/7

Alinorm 09/32/13

The Philippines would like to propose revisions of the following items:

Report of the Physical Working Group on the Development of the Proposed Draft Annex on Control Measures for *Vibrio parahaemolyticus* and *Vibrio vulnificus* in Molluscan Shellfish

1. Title of the Document, page1

From	To
Proposed Draft Annex on the Control Measures <i>Vibrio parahaemolyticus</i> and <i>Vibrio vulnificus</i> in Molluscan Shellfish	Proposed Draft Annex on the Control Measures <i>Vibrio parahaemolyticus</i> and <i>Vibrio vulnificus</i> in Bivalve Molluscs

Rationale: To focus discussion of the annex on bivalve molluscs only

2. Amendment on the Main Document (definition of “partially treated”), page 3, footnote 1 and paragraph 25, page 6

From	To
Partially treated: Any treatment intended to significantly reduce or limit but not completely eliminate <i>Vibrio</i> spp. in seafood. As a result of partial treatment, the raw sensory characteristics are lost.	Partially treated: Any treatment (<i>i.e. mild heat treatment, blanching and acid treatment</i>) intended to significantly reduce or limit but not completely eliminate <i>Vibrio</i> spp. in seafood. As a result of partial treatment, the raw sensory characteristics are lost.

Rationale: To provide common methods used to partially treat bivalve mollusks

Appendix II Proposed Draft Annex

1. Subsection

2.1 Scope, paragraph 3, page 10

From	To
This annex covers bivalve molluscs that are intended for consumption in a live, raw, or partially treated state. The target microbiological hazards of this Annex are pathogenic <i>V. parahaemolyticus</i> and <i>V. vulnificus</i>.	This annex covers bivalve that are intended for consumption in a live, raw, or partially treated state. <i>Bivalve molluscs include clams, mussels and oysters.</i> The target microbiological hazards of this Annex are pathogenic <i>V. parahaemolyticus</i> and <i>V. vulnificus</i>.

Rationale: To provide common examples of bivalve molluscs

THAILAND

2.2 Definition

For the examples of process given in the definition of **post-harvest processing**, Thailand is in question of whether the other process such as depuration is part of post-harvest processing or not. Also, we are not sure that the process of freezing can retain the sensory characteristics of live bivalve molluscs.

Part I: Bivalve molluscs consumed live or raw

5.2.1 Time and temperature control

We agree that the requirement on temperature control should be emphasized during processing operation and subsequently until consumption since the control during harvest and transport are already identified in Section 3.3. The paragraph should be amended to read:

“24. Refer to Section 4.1 of the Code of Practice for Fish and Fishery Products (CAC/RCP 52-2003). Temperature control to reduce the temperature to the point that *V. parahaemolyticus* and *V. vulnificus* do not grow should be used and maintained during processing {operation} ~~and subsequently until consumption~~ ~~[during the entire food chain]~~ ~~[during the entire food production/preparation chain].”~~

IACFO

The International Association of Consumer Food Organizations (IACFO) is an association of a dozen national non-governmental organizations from all over the world that represent consumer interests in the areas of nutrition, food safety, and related food policy matters. IACFO members work on food policy concerns unique to diverse populations and regions, such as India, Uganda, Malaysia, Japan, and others. We respectfully submit the following comments for consideration at the Forty first Session of the Codex Committee on Food Hygiene.

AGENDA ITEM 7: PROPOSED DRAFT ANNEX ON THE CONTROL MEASURES FOR *VIBRIO PARAHAEMOLYTICUS* AND *VIBRIO VULNIFICUS* IN MOLLUSCAN SHELLFISH AT STEP 3

Vibrio vulnificus (Vv) is a bacterium that is found naturally in warm waters and is associated with severe illness and death from septicemia. *Vibrio parahaemolyticus* (Vp) presents a different risk profile but is no less a matter of public concern. IACFO thanks the Food Hygiene Committee for undertaking this draft annex on control of Vv and Vp in molluscan shellfish and offers the following comments:

SECTION 2.2 DEFINITIONS

Paragraph 6:

Change the definition of “Post-harvest processing” to include elimination of Vv and Vp. This change recognizes that post-harvest treatment technologies exist which can achieve reductions to non-detectable levels while retaining the sensory characteristics of live bivalve molluscs. This would allow countries to set a desired level of safety that is consistent with the definition of “control measure” in Annex CAC/RCP 1-1969 (Rev. 4 – 2003). It also avoids the need to revise the definition should future studies demonstrate or new technologies are developed which can achieve the desired results while better protecting consumers.

“Post-harvest processing: processes (e.g. freezing, high pressure and mild heating) intended to significantly reduce, limit, or eliminate *V. parahaemolyticus* and *V. vulnificus* while essentially retaining the sensory characteristics of live bivalve molluscs (Section 7.7 of the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003)).”

SECTION 5.1 CONTROL OF FOOD HAZARDS

Paragraph 23:

The first sentence should be revised to be consistent with the above definition of post-harvest processing. This is necessary for consistency and to avoid placing an arbitrary upper limit on actions and thus restricting countries in achieving the desired level of safety. The first clause of the opening sentence of paragraph 23 should remove the words “not completely” so that it reads as:

“Any measure or practice selected to reduce, or limit, ~~but not completely~~ or eliminate *V. parahaemolyticus* and *V. vulnificus* in bivalve molluscs...”

The above recommendations are important to improving the Annex so that it allows countries to achieve a desired level of protection for their consumers, while encouraging trade. Thank you for the opportunity to comment on this measure.