



**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS**

Thirty-First Session

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**PROPOSED DRAFT STANDARD FOR FRESH/LIVE AND FROZEN ABALONE (*HALIOTIS* SPP.)
COMMENTS AT STEP 3**

(Argentina, Australia, Canada, Costa Rica, Kenya, Philippines and United States of America)

ARGENTINA

Comments:

a) Argentina suggests the following sub-paragraph be deleted: **I-3.2 Water for Purging** ~~Sea water for purging shall be of the required cleanliness to ensure that abalone comply with the requirements in I-6.4 and I-6.5 I-6.2~~

Rationale: Given the text in the background section of the reference document, stating that abalone represents a far smaller microbiological risk than other types of bivalves (filter feeders), and that it was not considered necessary to classify growing/harvesting areas on microbiological grounds, we believe no reference should be made to the purging water conditions, given that this procedure is performed to lower the microbiological concentration.

Argentina also considers that the sections describing the microbiological criteria determining fitness for human consumption (I-6.3 I-6.4 y I-6.5 I-6.6) should be deleted from the proposed draft, because there are no reference parameters to determine its appropriateness.

Similarly, if it is decided to retain the reference, the requirements set out in the **Code of Practice for Fish and Fishery Products**, Section 7, should be taken into account, because irrespective of the relevant species, the microbiological criteria determining fitness for human consumption should be similar for all mollusc species.

b) Argentina suggests deleting the following sub-paragraph: **I-7.1.2** ~~In addition to the specified labelling designations above, the usual or common trade names of the variety may be added so long as it is not misleading to the consumer in the country in which the product will be distributed.~~

Rationale: This is described in paragraph I.7 Labelling.

c) Argentina proposes changing the wording for sub-paragraph: **II-7.3 Storage Instructions**. ~~The label shall include terms to indicate that the product shall be stored at a temperature of -18°C or colder for frozen abalone and -2° C to +4° C for chilled abalone.~~

The label should include the following text: **This product should be stored at a temperature of 18° C below zero for frozen abalone and between 2° C and 4° C below zero for chilled abalone during transport, storage and distribution procedures.**

Rationale: Takes account of handling operations in protecting the product's safety.

AUSTRALIA**General Comments:**

- 1) Australia commends South Africa for the significant revisions to Section I-5.2 pertaining to marine biotoxins and removal of requirements to classify production areas.
- 2) With respect to requirements for marine biotoxins (Sections I-5.2 and II-5) Australia suggests that the 'risk assessment' process be specifically referred to in the text as the key 'tool' for Competent Authorities to determine if risk management protocols are required. This is consistent with the Codex principles.
- 3) Australia recommends that Section I-5.2 is consistent in approach with Section I-5.1. In this regard, we recommend that the tables are removed from Section I-5.2 and a cross reference included to meeting the maximum limits contained in the Draft standard for Live and Raw Bivalve Molluscs, if a risk assessment determines a risk from potential toxins in abalone.
- 4) Abalone which has had the **viscera (shucked) and epithelium removed** (e.g. canned abalone) should not be required to meet Section I-5.2 (as cross referenced in II-5). Scientific evidence indicates that removing the viscera and epithelium during processing significantly reduces the risks associated with abalone and marine biotoxins. Scientific studies on 3 separate species of abalone (*H. laevigata*¹, *H. tuberculata*², and *H. midae*³) demonstrate that ~70% of any toxin present is removed. Due to low propensity for abalone to take up toxins this reduction is an effective risk management step.

Specific Comments:**BACKGROUND**

Australia recommends that the following text be amended as follows:

In paragraph 3, after the words 'determine whether this risk' delete '~~exists~~' and add **exists**

Rationale: To correct a typographical error.

1. SCOPE

Australia recommends the text be amended as follows:

In the second sentence after the words 'shucked with the viscera' delete '~~and mucous~~'

In the third sentence after the words 'The epithelium' add '**mucous**'

In the last sentence after the words 'live and raw' add '**fresh chilled or frozen**'

Rationale: The mucous may not always be removed if shucked. Australia recommends the insertion of 'fresh chilled or frozen' to be consistent with the heading of this standard.

PART I – LIVE ABALONE**I-5 CONTAMINANTS**

Australia recommends the text be amended as follows:

I-5.2 Abalone from some geographical areas have been found to accumulate **some marine biotoxins**. It is up to the **Competent Authority (using a Risk Assessment)** to determine whether a risk exists in any geographical areas under its control and if so, put in the necessary mechanisms to ensure ~~abalone meet with the following requirements in the edible part~~ **the edible portion of abalone meet with the marine biotoxins limits in the Draft standard for Live and Raw Bivalve Molluscs. The Risk Assessments should be undertaken in accordance with the Working Principles for Risk Analysis for Application in the**

¹ Dowsett N, Hallegraef G, van Ruth P, van Ginkel R, McNabb P, Kiermeier A, Deveney M, McLeod C (2010) Uptake, distribution and depuration of paralytic shellfish toxins in Australian greenlip abalone, *Haliotis laevigata*. *Toxicon*. 1-26. In prep.

² Bravo, I., J. M. Franco, et al. (2001). "Cytological study and immunohistochemical location of PSP toxins in foot skin of the ormer, *Haliotis tuberculata*, from the Galician coast (NW Spain)." *Marine Biology* **138**(4): 709-715

³ Pitcher, G. C., J. M. Franco, et al. (2001). "Paralytic Shellfish Poisoning in the abalone *Haliotis midae* on the West Coast of South Africa." *Journal of Shellfish Research* **20**(2): 895-904

framework of the Codex Alimentarius. The provisions of this section should not apply to processed abalone meat that has had the viscera and epithelium removed.

Australia recommends the deletion of the following text:

Name of biotoxin groups	Maximum level / kg of abalone flesh
Saxitoxin (STX) Group	≤ 0.8 milligrams (2HCL) of saxitoxin equivalent

Rationale:

- Australia notes that the risk of contamination of abalone with biotoxins varies between different regions of the world. As such, it recommends that the Competent Authority of individual countries should determine the need for biotoxin monitoring of abalone on the basis of a Risk Assessment and that a cross reference to guidance on how to undertake a Risk Assessment be included. See also: General Comments, Point 2.
- Australia notes scientific evidence which indicates that removing the viscera and epithelium during processing significantly reduces the biotoxin related risks associated with abalone consumption. Australia therefore recommends the provisions of I-5.2 should not apply to shucked abalone with the epithelium removed. (see footnotes associated with General Comments: Point 4 for scientific evidence).
- In order to be consistent with the approach taken in Section I-5.1 and not to duplicate the marine biotoxins maximum levels, we recommend cross-referencing the Bivalve standard. See General Comments, Point 3 for rationale.

I-7 THE NAME OF THE FOOD

Australia recommends the text be amended as follows:

I-7.4 Labelling of Non-retail Containers

Date of minimum durability may be replaced by the statement “Abalone must be alive when sold **to the final consumer**”.

Rationale: Live abalone are often expressly purchased so that they can be displayed in suitable fish tanks for the consumer to select the product they wish to consume. If the abalone are dead at any point in the supply chain prior to the display in the fish tank they should be removed from the shipment and processed (if safe to do so) or disposed of.

I-8 SAMPLING, EXAMINATION AND ANALYSIS

Australia recommends the text be amended as follows:

I-8.1 Sampling

- (i) Each sample shall contain a sufficient number of abalone to ensure that the sample is representative of the lot **as detailed in the General Guidelines on Sampling (CAC/GL 50-2004).**
- (ii) The portion of the abalone to be analysed shall be the edible part. This is generally the ~~whole~~ **tissue muscular foot tissue, but not the viscera. Sampling of lots for examination of the product shall be in accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004).**

Rationale:

- (i) Australia recommends a definition of “lot” should be included as should guidance on the number of abalone comprising a sample. This could be achieved by including a reference to the General Guidelines on Sampling (CAC/GL 50-2004).
- (ii) Australia recommends that as the foot (muscle) of the abalone is the portion that is most commonly eaten; this should be the portion that is analysed. The viscera is generally not consumed.

I-8.4. Determination of Biotoxins

Australia recommends the deletion of this table, and the inclusion of the following text:

Provision	Methodology	Principle	Type
Saxitoxin group	AOAC Official Method 2005.06 (Paralytic Shellfish Poisoning Toxins in Shellfish) four matrices and 12 toxins	LC-FL	II

If biotoxins testing of abalone is undertaken, methods used should be in accordance with the principles contained in the Draft List of Methods for the Determination of Biotoxins in the standard for Raw and Live Bivalve Molluscs.

Rationale: Other methods may also be suitable for screening and confirming presence/absence of marine biotoxins in abalone. Method criterion are currently being elucidated by a Codex Working Group. Therefore to remain consistent with the rest of this standard, a cross reference to this standard should be included (and the specific method reference removed).

I-9 DEFINITION OF DEFECTIVES

Australia recommends the text be amended as follows:

I-9.1 Foreign Matter

In the first sentence after the words ‘derived from abalone’ add ‘**may**’ and delete ‘~~does not~~’

Rationale: Live wild caught abalone can have marine growths such as seaweeds, soft and hard corals and other shellfish adhering to the outside of the shells. While these may not be acceptable to the end user if present in excessive quantities, they should not be considered defective because they do not pose a health risk. Only foreign matter that poses a threat to human health should be classed as a defective

PART II

Australia recommends the title of Part II be amended to better define the products being described as follows:

PART II – RAW FRESH CHILLED, ~~OR FROZEN~~ WHOLE ABALONE OR ABALONE MEAT

II-2 DESCRIPTION

Australia recommends the text be amended as follows:

II-2.1 Product Definition

Raw fresh chilled, ~~or~~ frozen **whole** abalone or **abalone meat** processed for direct consumption or for further processing are products that were alive immediately prior to the commencement of processing and comply with Section I-2.2 relating to harvesting. They have been chilled or frozen whole or shucked with the viscera ~~epithelium and mucous~~ removed. The **epithelium, mucous or** radula may be removed. (The product is then chilled or frozen while essentially retaining the sensory characteristics of live abalone). **Section II-5 of this standard does not apply to processed abalone meat that has the viscera and epithelium removed.**

Rationale:

- *If abalone meat has been shucked it can be generally assumed that the viscera has been removed. It is not always the case that the epithelium or mucous has been removed therefore the additions above clarify these circumstances.*
- *Refer to rationale in Section I-5.2 on the effect of removing the viscera and epithelium during processing.*

II-2.2 Process Definition

Australia recommends the text be amended as follows:

In the last sentence after the words ‘The product shall be kept deep frozen’ add ‘**at -18°C or colder**’

Rationale: The storage temperature should be defined in this proposed standard in accordance with the Code of Practice for Fish and Fishery Products (CAC/RCP 52-2003).

II-3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

Australia recommends the text be amended as follows:

II-3.4 Final Product

At the end of the paragraph add new sentence '**The following exceptions apply:**

- (i) **Section II-5 of this standard does not apply to processed abalone meat that has the viscera and epithelium removed.**

Rationale: Refer to rationale in Section I-5.2 on the effect of removing the viscera and epithelium during processing.

II-8 SAMPLING < EXAMINATION AND ANALYSIS

Australia recommends the text be amended as follows:

II-8.1 Sampling

- (i) Each sample shall contain a sufficient number of abalone to ensure that the sample is representative of the lot **as detailed in the General Guidelines on Sampling (CAC/GL 50-2004).**
- (ii) The portion of the abalone analysed should be the edible part. This is generally the ~~whole tissue~~ **muscular foot tissue, but not the viscera.** Sampling of lots for examination of the product shall be in accordance with the Codex General. Guidelines on Sampling (CAC/GL 50-2004).

Rationale: See Section I.8.1 for rationale.

II-8.5.1 Procedures for Thawing

For frozen product, the sample unit is thawed by enclosing it in a film type bag **and** ~~immersing in water~~ **allowing it to thaw at room temperature (not greater than 35 °C) or in a refrigerator for 24 to 48 hours (at 2-6 °C).** The complete thawing of the product is determined by gently squeezing the bag occasionally so as not to damage the texture of the abalone, until no hard core or ice crystals are left.

Rationale: Australia recommends that abalone be thawed at a refrigerated temperature (2-6°C) to ensure the integrity of the abalone meat. Force thawing abalone meat (i.e. immersing it in water) will destroy the integrity of the meat (through texture breakdown of up to 80%) such that it will not comply with those requirements of II-9.4.

II-8.6 Determination of Biotoxins

Refer to ~~I-8.6~~ **I-8.4** Determination of Biotoxins.

Rationale: To amend a cross referencing error following earlier removal of sections by South Africa.

II-9 DEFINITION OF DEFECTIVES

Australia recommends the text be amended as follows:

II-9.2 Foreign Matter

In the first sentence after the words 'derived from abalone,' add '**may**' and delete '~~does not~~'

Rationale: Live wild caught abalone can have marine growths such as seaweeds, soft and hard corals and other shellfish adhering to the outside of the shells. While these may not be acceptable to the end user if present in excessive quantities, they should not be considered defective because they do not pose a health risk. Only foreign matter that poses a threat to human health should be classed as a defective

CANADA**GENERAL COMMENTS**

Canada appreciates the work of South Africa in preparing the revised *Proposed Draft Standard for Live Abalone and for Raw Fresh Chilled or Frozen Abalone for Direct Consumption or for Further Processing*. Canada continues to support the advancement of this standard in the Codex Step procedure and is pleased to offer the following comments.

SPECIFIC COMMENTS**PART I – LIVE ABALONE****I-8 SAMPLING, EXAMINATION AND ANALYSIS****I-8.4 DETERMINATION OF BIOTOXINS**

Canada would like to propose that the table listing the method for Saxitoxin be replaced with the following paragraph, to be left in square brackets pending the adoption of the ongoing work on the “Performance Criteria and Principles for Marine Biotoxin Methods” under the Standard for Live and Raw Bivalve Molluscs.

“[Competent authorities should use the “Performance Criteria and Principles for Marine Biotoxin Methods” when selecting appropriate methodology for determination of biotoxin levels in abalone.]”

Reason:

Canada is of the opinion that listing specific methods is limitative in the context of rapid evolution of science in this specific area of toxicology. This approach will ensure that the Standard allows for the use of a variety of validated methods and does not need to be changed frequently to accommodate newly validated methods. This approach would be in line with the work that has been developed by the E-WG on Proposed Draft List of Methods for the Determination of Biotoxins in the Standard for Raw and Live Bivalve Molluscs, which is aimed at establishing performance criteria/principles instead of having a list of specific methods included in a Standard.

PART II – RAW FRESH CHILLED OR FROZEN ABALONE**II-8 SAMPLING, EXAMINATION AND ANALYSIS****II-8.6 DETERMINATION OF BIOTOXINS**

Canada proposes the following editorial change: “Refer to ~~I-8.6~~ **I-8.4** Determination of Biotoxins”

COSTA RICA

Costa Rica has no comments to submit regarding this document and considers that the document is well drafted.

KENYA**PART I – LIVE ABALONE****I-2DESCRIPTION****I-2.1 Product definition**

1. Live abalone are products that are alive immediately prior to consumption. Presentation includes the shell.

Comment

We propose to add clause 1.2.2 as a definition of ‘clean sea water’ as it is mentioned in the text

1.2.2. Clean sea-water is sea-water which meets the same microbiological standards as potable water and is free from objectionable substances

I-3.3 Ice for Packing**Comment**

If ice is used for packing, the water used for the manufacture of ice shall be of potable quality or shall be clean sea-water. *Potable water is fresh water fit for human consumption and its Standards for potability shall not be less than those contained in the latest edition of the WHO “International Guidelines for Drinking Water Quality.”*

Comment

There is no need to have food additives in fresh fish so we propose to delete the clause

I-4 FOOD ADDITIVES

~~Food additives are not permitted in live abalone.~~

I-7.1 The Name of the Food

The name of the food to be declared on the label shall be the common or usual name of the species of abalone in accordance with the law and custom of the country in which the food is sold and in a manner not to mislead the consumer.

Comment

We propose the deletion of this clause (see the comment below)

~~I-7.1.1 There shall appear on the label, reference to the presentation (provided for in Section I-2.3- Presentation) in close proximity to the name of the product in such descriptive terms that will adequately and fully describe the nature of the presentation of the product to avoid misleading or confusing the consumer.~~

Comment

The nature of the presentation of the product shall be declared on the label (provided for in Section I-2.3- Presentation)

I-7.1.2 In addition to the specified labelling designations above, the usual or common trade names of the variety may be added so long as it is not misleading to the consumer in the country in which the product will be distributed.

The deleted sentence is a repetition of the above clause

~~In addition to the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985) the following specific provisions apply: repetition~~

I-7.4 Labelling of Non-retail Containers

Comment – ‘the abalone must be alive when sold’ so the durability is not necessary

(iii) Durability or shelf life. Date of minimum durability may be replaced by the statement

I-8.1 Sampling. Kenya recommends the clause to read ‘sampling plan instead of ‘sampling’

II-2.2 Process Definition

Comment on second statement:

The chilling process shall be carried out in appropriate equipment in such a way as to ensure the product shall be quickly brought down to the temperature of melting ice (*with a maximum tolerance of -2°C to +4°C*).

II-3.2 Glazing (for Frozen Abalone only)

~~Delete the last statement which reads:” Clean sea-water is sea water which meets the same microbiological standards as potable water and is free from objectionable substances~~

II-7.1.1 There shall appear on the label, reference to the presentation (provided for in Section II-2.3- Presentation) in close proximity to the name of the product in such descriptive terms that will adequately and fully describe the nature of the presentation of the product to avoid misleading or confusing the consumer.

Kenya proposal: *The nature of the presentation of the product shall be declared on the label (provided for in Section II-2.3- Presentation)*

II-7.1.2 In addition to the specified labelling designations above, the usual or common trade names of the variety may be added so long as it is not misleading to the consumer in the country in which the product will

~~be distributed.~~

II-9.1 Deep Dehydration

Kenya comment: Is when the loss of moisture is greater than ~~10~~**Greater than** 10% of the weight of the abalone in the sample unit, exhibited ~~excessive loss of moisture as clearly shown~~ as white or abnormal colour on the surface which masks the colour of the flesh and penetrates below the surface, and cannot be easily removed by scraping with a knife or other sharp instrument without unduly affecting the appearance of the abalone. –

II-9.2 Foreign Matter

Kenya comment: The presence ‘**of any matter**’ in the sample unit ~~of any matter~~ which has not been derived from abalone ‘**and**’ does not pose a threat to human health and is readily recognized without magnification. Its ~~or is~~ ‘**presence**’ ~~at is a level~~ determined by any method including magnification, that indicates non-compliance with good manufacturing and sanitation practices.

II-10 LOT ACCEPTANCE

We proposes to delete the word ‘as’

A lot shall be considered as meeting the requirements of this standard when:

(i) *the total number of defectives, ~~as~~ classified according to section II-8 does not exceed the acceptance number (c) of the appropriate sampling plan in the General Guidelines on Sampling (CAC/GL 50-2004);*

PHILIPPINES

The Philippines also acknowledges the work undertaken by South Africa in redrafting the proposed Draft Code of Standard for Fresh/Live and Frozen Abalone (*Haliotis* spp.) (at Step 3 of the procedure) specifically on Section I-5.2 (CX/FFP 11/31/5) and poses no further comments.

UNITED STATES OF AMERICA

In response to CX/FFP 11/31/11, the United States respectfully submits the following comments on the Proposed Draft Standard for Live Abalone and for Raw Fresh Chilled or Frozen Abalone for Direct Consumption or for Further Processing (at Step 3 of the Procedure). Recommended additional language within sentences is highlighted in bold for the convenience of the reader.

General Comment

It may be inappropriate to model the Abalone Standard after the Standard for Live and Raw Bivalve Molluscs. Abalones are not filter feeders and the viscera are not consumed. Therefore, the food safety hazards for abalone are more closely related to finfish.

Specific Comments

1. SCOPE, 2nd and 4th sentences, **delete as follows:**

2nd sentence: “~~Raw fresh chilled or frozen abalone may be whole or shucked with the viscera and mucous removed.~~”

4th sentence: “~~Chilling or freezing is done in such a way that essentially the freshness characteristics of live abalone are retained.~~”

Reason: *These sentences only apply to chilled or frozen abalone and are repeated in the Product Definition for that product (see subsection II-2.1 for further recommended changes to this wording.)*

I-2.2 Process Definition, **revise as follows:**

“Live abalone are harvested alive from a harvesting area or farm ~~approved by the official agency having jurisdiction, to supply abalone for direct human consumption~~ and may be purged in clean sea water and/or drained prior to packaging for direct human consumption or for further processing as in II-2.2.”

Reason: *We do not believe it is necessary for the official agency to approve the harvesting area or farm. Abalone pose a lesser microbiological hazard than filter feeding shellfish.*

I-3.2 Water for Purging and I-3.3 Ice for Packing, delete these subsections

Reason: This information would be more appropriately placed in a section on processing of abalone in the Recommended Code of Practice on Fish and Fishery Products.

Subsection I-3.2 refers to subsection I-6.2 that lists the guidance on how to create new microbiological requirements (CAC/GL 21-1997). This document does not contain any microbiological requirements.

Add new subsection **I-6.3**, as follows:

“The final product shall be free from any foreign material that poses a threat to human health.”

Reason: A standard requirement, included here in other standards.

I-7.1.2, 2nd paragraph, delete

Reason: Editorial. This paragraph is duplicated – also under I-7 Labelling.

I-7.4 Labelling of Non-retail Containers, delete and replace with the following:

“Information specified above shall be given either on the container or in accompanying documents, except that the name of the food, lot identification, and the name and address of the manufacturer or packer as well as storage instructions shall always appear on the container.

However, lot identification, and the name and address may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.”

Reason: The U.S. feels it is appropriate to use language that is consistent with other Codex Standards besides that of Live and Raw Bivalve Molluscs because the risks are not as high with non filter feeding organisms.

I-8.1 Sampling, Subsection (i), delete and replace with original language from first draft (CX/FFP 08/29/11) as follows:

“(i) Sampling of lots for examination of the product shall be in accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004).”

Reason: For sampling guidance, standards should refer to the Codex General Guidelines on Sampling.

I-8.1 Sampling, Subsection (ii), 2nd sentence, delete “~~This is generally the whole tissue.~~”

Reason: The statement is confusing because consumers generally do not eat the viscera.

I-9.2 Dead or Damaged Product, revise the last sentence as follows:

“The product sample unit is rejected defective if more than 5% of the units abalones in the sample unit are dead or damaged.”

Reason: To format as a ‘definition of defective’ as appropriate for this subsection. If percent dead and damaged is intended as an independent criterion for acceptance of the lot, then it should be listed as a separate higher level subsection under I-8 (Sampling, Examination and Analysis).

I-10 LOT ACCEPTANCE, Subsection (i), revise as follows:

“(i) the total number of defectives as classified according to section I-9 does not exceed the acceptance number (c) of the appropriate sampling plan in the General Guidelines on Sampling (CAC/GL 50-2004) with an AQL of 6.5;”

Reason: An acceptable quality limit (AQL), or limiting quality (LQ), should be listed per Codex guidance documents, and as listed in most previous fish and fishery product standards.

I-10 LOT ACCEPTANCE, Subsection (ii), revise as follows:

“(ii) the average count designation as defined in section I-8.3 is within the declared count, and the total number of sample units not meeting the count designation as defined in section I-8.3 does not exceed the acceptance number (c) of the appropriate sampling plan in the General Guidelines on Sampling (CAC/GL 50-2004) with an AQL of 6.5;”

Reason: The average size should be within the declared size range, as with net weight. See previous comment on AQL (Subsection I-10 (i)).

I-10 LOT ACCEPTANCE, Subsection (iv), revise as follows:

“(iv) the **Essential Composition and Quality Factors**, Food Additives, **Contaminants**, Hygiene and **Handling**, and Labelling requirements of Sections **I-3**, I-4, I-5, I-6 and I-7 are met.”

Reason: Completeness and clarity.

II-2.1 Product Definition, 2nd and 3rd sentences, **revise as follows:**

“**They have been chilled or frozen whole, or shucked with the viscera, epithelium and mucous removed. The mucous, epithelium and radula may be removed.**”

Reason: Mucous and epithelium removal is a presentation issue and should be optional.

II-4 FOOD ADDITIVES. We suggest deleting the allowance for antioxidants until a member country provides evidence for their need.

*Reason: The only use of food additives in abalone that we are aware of is the use of sulfites to bleach the unusually dark meat color of *Haliotis iris* (paua) in canned New Zealand and Australia product. Canned product is not covered under this standard.*

II-4.1 Antioxidants, See comment above (Section II-4).

II-7.4 Labelling of Non-retail Containers, delete and replace with the following:

“**Information specified above shall be given either on the container or in accompanying documents, except that the name of the food, lot identification, and the name and address of the manufacturer or packer as well as storage instructions shall always appear on the container.**

However, lot identification, and the name and address may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.”

Reason: See previous comment for Subsection I-7.4.

II-8.1 Sampling, Subsection (i), delete and replace with the following:

“(i) **Sampling of lots for examination of the product shall be in accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004).**”

Reason: See previous comment for Subsection I-8.1 (i).

II-8.1 Sampling, Subsection (ii), 2nd and 3rd sentences, delete “~~This is generally the whole tissue. Sampling of lots for examination of the product shall be in accordance with the Codex General Guidelines on Sampling (CAC/GL 50-2004).~~”

Reason: See previous comment for Subsection I-8.1 (ii) regarding 2nd sentence. We are suggesting to move the 3rd sentence to II-8.1(i) as in our comment above and to be consistent with I-8.1.

II-8.3.1 Determination of Net Weight of Product Exclusive of Packaging, add new first subsection before existing first subsection (renumbering the existing subsections) as follows:

“(i) **Remove frost and ice from outside of package;**”

Reason: Frost and ice on the package should not be included in net weight.

II-8.5.1 Procedures for Thawing, change “...in water at room temperature (not greater than 35 °C)” to “in water at room temperature (not greater than 27 °C)”.

Reason: Water at 35 °C is hot and may cause excessive drip loss during thawing. Maximum specified water temperature for thawing or deglazing is generally 27 °C (80 °F).

II-9.3 Odour/Flavour, revise as follows:

“**Persistent and distinct objectionable odours or flavours indicative of decomposition, rancidity, or other odours or flavours unfit for food.**”

Reason: Other odors and flavors, such as fuel odor, could cause the sample unit to be defective for odor and flavor.

II-10 Lot Acceptance, Subsection (i), revise as follows:

“(i) the total number of defectives as classified according to section ~~II-8~~ **II-9** does not exceed the acceptance number (c) of the appropriate sampling plan in the General Guidelines on Sampling (CAC/GL 50-2004) **with an AQL of 6.5;**”

Reason: See previous comment for Subsection I-10 (i).

II-10 Lot Acceptance, Subsection (ii), revise as follows:

“(ii) **the average count designation as defined in section II-8.4 is within the declared count, and** the total number of sample units not meeting the count designation ~~as defined in section II-2.3~~ does not exceed the acceptance number (c) of the appropriate sampling plan in the General Guidelines on Sampling (CAC/GL 50-2004) **with an AQL of 6.5;**”

Reason: See previous comment for Subsection I-10 (ii).

II-10 Lot Acceptance, Subsection (iv), revise as follows:

“(iv) the **Essential Composition and Quality Factors**, Food Additives, Hygiene and **Handling, and** Labelling requirements of Sections **II-3**, II-4, II-5 and II-6, **and II-7** are met.”

Reason: *Completeness and clarity.*