



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE  
ORGANIZACION DE LAS NACIONES UNIDAS PARA LA AGRICULTURA Y LA ALIMENTACION  
00100 Rome, Via delle Terme di Caracalla. Cables: FOODAGRI, Rome. Tel. 5797



WORLD HEALTH ORGANIZATION  
ORGANISATION MONDIALE DE LA SANTÉ  
1211 Genève, 27 Avenue Appia. Cables: UNISANTÉ, Genève. Tél. 34 60 61

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JOINT FAO/WHO FOOD STANDARDS PROGRAM

CODEX ALIMENTARIUS COMMISSION

Sixth Session, Geneva, 4-14 March, 1969

CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS

Third Session, 7-11 October, 1968

Bergen, Norway

INTRODUCTION

1. The Codex Committee on Fish and Fishery Products held its third session in Bergen, Norway, 7-11 October 1968, by courtesy of the government of Norway. Dr. O.R. Braekkan was in the chair and delegations and observers from 24 countries and from 5 international organizations attended the session. A complete list of participants is set out in Annex 1 to this report.
2. The chairman welcomed the participants, in the name of the Director-General of Fisheries of Norway, especially those who attended the Codex Committee on Fish and Fishery Products for the first time. Mr. L.G. Hanson (U.K.) was appointed rapporteur of the session.

ADOPTION OF THE AGENDA

3. The agenda of the session was adopted by the Committee with only a slight modification.
4. The representative of FAO summarized developments since the last session of the Committee. The matters which were brought to the attention of the Committee were:

The acceptance of Codex Standards;

Quality criteria in Codex Standards;

The decision of the Codex Alimentarius Commission with regard to Codes of Practice;

The Elaboration of a General Standard for Quick Frozen Foods;

The adoption by the Commission of the Draft Provisional Standard on Canned Pacific Salmon at Step 5 of the Procedure for the Elaboration of World-wide Standards.

GENERAL STANDARD ON FISH, CRUSTACEANS AND MOLLUSCS

5. The Committee discussed as the first item of the Agenda the Proposed Draft Provisional General Standard on Fish, Crustaceans and Molluscs and Products thereof. This document had been prepared under the joint authorship of the Federal Republic of Germany and the Netherlands. The Committee agreed that at the present time, in the absence of government comments it could not examine the document in detail. It decided to consider the document not as a General Standard, but as "Guidelines" for the Committee and to ask the Secretariat in Rome to distribute the document to Members of the Committee together with the Appendix on Additives. After a preliminary scrutiny of the document during which some delegations commented on it, the Committee agreed that the document should be circulated to Members of the Committee who were asked to make detailed comment in writing. The Federal Republic of Germany agreed to assume responsibility for collating the comments and preparing a new draft. Comments should be sent before the end of March 1969 to the Chief delegate of the Federal Republic of Germany. A reference to this request is also made in paragraph 31 of the present report.

FAO CONFERENCE ON FISH INSPECTION

6. The delegation of Canada informed the Committee that a FAO conference on Fish Inspection and Quality Control will be held during 15-25 July 1969, in Halifax, Canada. At that meeting, in one of the special working groups nomenclature and supplementary definitions may be elaborated which could be useful for the redraft of the above "Guidelines". The delegation of France mentioned that there were available in various documents definitions similar to those in the German-Netherlands documents and these should also be taken into consideration when the redraft was being prepared.

GENERAL STANDARD FOR QUICK FROZEN FOODS

7. The Committee considered the General Standard for Quick Frozen Foods which the Joint ECE/Codex Alimentarius Group of Experts on Standardization of Quick (Deep) Frozen Foods had elaborated. The Committee was informed that the Joint Group at its 4th session in September 1968 had agreed on a revised definition of these foods and also on the nomenclature in English to describe these foods as "quick-frozen".

The Joint Group had decided to submit the General Standard for Quick Frozen Foods to the 6th Session of the Codex Alimentarius Commission at Step 8 of the Procedure for the Elaboration of World-wide Standards. The Commission was requested by the Joint Group to pronounce itself on the question whether this document should be adopted as a Standard or as an advisory Code of Practice. The Committee noted that the General Standard was intended to cover all quick-frozen foods.

8. The Committee had a full discussion whether the General Standard for Quick Frozen Foods was suitable for fish and fishery products. Most delegations felt that this General Standard was not suitable for fish and fishery products. Several delegations considered that it could be used as a Code of Practice. The delegations from the Netherlands, Sweden, and the U.K., expressed the view that the standard in the present state was applicable to fish and fishery products, and that in their opinion it was important to distinguish between quick-frozen fish and frozen fish.

CODE OF TECHNOLOGICAL PRACTICE FOR FRESH FISH

9. A draft code of technological practice for fresh fish prepared by the Fisheries Department of FAO had been distributed to the members of the Committee. <sup>1/</sup> The Committee expressed its appreciation for this document and felt it would help in the future elaboration of standards for fresh fish. The Committee was informed that FAO had sent this document to governments, international organizations and individual experts for comments. In the light of these comments a final version would be drawn up in March 1969 by a group of experts. This version would then be submitted to the Codex Committee on Fish and Fishery Products.

CODE OF TECHNOLOGICAL PRACTICE FOR FROZEN FISH

10. A draft code of technological practice for frozen fish prepared by the Committee for Fisheries, OECD, was distributed as a conference room document.<sup>2/</sup> The Committee was informed that this code would also be considered by the Fisheries Department of FAO. Members of the Committee were asked to send comments to the Department of Fisheries FAO not later than 15th of June 1969. These comments would be taken into consideration by the experts in the revision of the present draft.

DRAFT PROVISIONAL STANDARD ON CANNED PACIFIC SALMON

11. The Draft Provisional Standard on Canned Pacific Salmon was examined at Step 7 of the Procedure for the Elaboration of World-wide Standards. A recast version in the new Codex format was before the Committee. The Committee made a number of slight amendments and the revised draft provisional standard appears as Annex 2 to this report. The common name for the species *Oncorhynchus masou* was discussed. On the proposal of the delegation of Japan the Committee agreed upon the common name Cherry Salmon. It was agreed that in the information to be embossed in code on the can, the species should be stated together with the cannery and the date of canning. The delegation of Kenya proposed that an indication of the factory shift should also be included in the coded information.

The Committee considered the provisions dealing with the external conditions of cans and with bacteriological examination which were included under the heading of "Methods of Analysis and Sampling" in the original version of the standard. The Committee decided to exclude these paragraphs from the standard because they considered that the requirements for canned fish products were the same as for other canned foods.

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<sup>1/</sup> Codes of Practice for Fish and Fishery Products, Part I. Draft Code of Practice for Fresh fish, March 1968. (Cx 5/35, Fresh Fish Code).

<sup>2/</sup> OECD, Committee for Fisheries, Draft Code of Practice for Frozen Fish, Paris, 13 August 1968. (OECD document, DAA/FI/52).

The Committee noted that the Codex Committee on Food Hygiene was considering the question of agreed international referee methods of analysis and sampling for determining the presence of microorganisms, in particular pathogens. In view of this fact the Committee decided to ask the Codex Committee on Food Hygiene to prepare suitable recommendations for canned fish on these matters. The Committee noted that the Bourdon Vacuum Test would be examined by the Codex Committee on Methods of Analysis and Sampling.

The representative of WHO informed the Committee about the discussions in the WHO Expert Committee on Microbiological Aspects of Food Hygiene which were held in October 1967 in collaboration with FAO. This Committee among other subjects dealt with the principles and difficulties of setting up microbiological standards. It was mentioned that if the Codex Committee on Fish and Fishery Products would like to have developed microbiological standards for various fisheries products it should collect and submit sufficient background material relating to this to the Chairman of the Codex Committee on Food Hygiene in Washington.

12. The Committee decided to submit to the sixth session of the Codex Alimentarius Commission at Step 8 of the Procedure the Draft Provisional Standard on Canned Pacific Salmon.

#### SAMPLING OF CANNED FISH PRODUCTS

13. On methods of analysis and sampling the Committee was of the opinion that the sampling plans developed by the Codex Committee on Processed Fruit and Vegetables could be made applicable to canned fish products. These plans which are mainly statistical plans to cover quality evaluation at present refer to two inspection levels - one for normal trading purposes the other as a referee method in the event of disputes. The Committee was informed that these sampling plans are being submitted to the 6th Session of the Codex Alimentarius Commission at Step 5 of the Procedure.

#### FROZEN GUTTED PACIFIC SALMON

14. The Committee discussed a redraft of the Proposed Draft Provisional Standard for Frozen Guttled Pacific Salmon (author country: Canada), which had been retained at Step 4 of the Procedure by the second session of the Committee in October 1967. It agreed that the standard applied to fish packed in bulk and redrafted the scope and labelling sections of the standard accordingly.

15. The Committee had a full discussion about the references in the existing definition of the standard to the rate of freezing. It recognized that the standard was intended to apply to a "quick frozen" product. Some delegations considered that references should not be made to processing methods since these were more suitable in a code of practice and were very difficult, if not impossible, to enforce on the final product. Other delegations thought it essential that the definitions should be drawn up in such a way as to indicate clearly the nature of the product dealt with in the standard. The Committee agreed to base a revised definition on that in the General Standard for Quick Frozen Foods suitably amended. The main change was the substitution of the word "should" for "shall", which the Committee thought would enable countries wishing to accept the standard with more stringent requirements to do so by specifying "shall". The Committee recognized that the Commission at its 6th session would be considering the General Standard for Quick Frozen Foods and that it would be helpful to include in the report of the Committee an indication of the views of the delegations present on the revised definition of the standard for Frozen Guttled Pacific Salmon.

Twelve delegations indicated that they were in favour of "shall" and nine said that they would prefer "should". The delegation of Australia did not express a preference as he considered that the principal difficulties were in connection with transportation and that the revised text of the definition did not sufficiently recognize the practical difficulties experienced in transporting quick frozen products and also the difficulties of enforcement.

16. The author country informed the Committee that an additive section had been included in the standard to cover substances which might be used for the glazing of fish. The author country agreed to deleting this section since these substances were not, in fact, being used but had been taken from the relevant literature on the glazing of fish. The additives for glazing which were deleted are acetylated monoglycerides, ascorbic acid and sodium phosphate dibasic and the author country requested members of the Committee to send information to the Chairman of the delegation of Canada indicating whether any of these substances were being used in their countries.

With regard to labelling the Committee deleted the references to the General Standard on the Labelling of Prepacked Foods since the standard was applicable only to bulk products.

It was also decided that references to the weight of the fish and indications as to how the fish was caught need not be provided for as, in the Committee's view, these details could be left to be specified by the seller and buyer. In respect of the Methods of Analysis and Sampling Section of the standard the Committee decided to retain the present provisions although it noted that the sampling plans were not based on strictly statistically calculations. Governments would be able to comment on these provisions and to suggest other methods. The Committee decided to move the standard forward to Step 5 for submission to the sixth session of the Codex Alimentarius Commission. The revised standard is attached to this Report as Annex 3.

#### FROZEN FILLETS OF COD AND HADDOCK

17. The Committee considered the Proposed Draft Provisional Standard on Frozen Fillets of Cod and Haddock which had been submitted to governments for a second round of comments at Step 3 of the Procedure. The version of the Standard on which governments had commented contained alternative definitions for "fillets", the main differences being that the first alternative referred to sections cut at right angles and excluded fillets cut from frozen blocks. A number of delegations again expressed the view that fillet packs prepared from blocks would inevitably include a number of small pieces of fish which could not be regarded as being the same as fillets. Other delegations who supported the view that fillets complying with the standard could in fact be cut from blocks of fish suggested that it was desirable that the standard should not impede future technical developments such as in automatic packing. During the discussion, a revised definition incorporating parts of the two previous alternative versions was put before the Committee. This definition made no reference to fillets cut from frozen blocks but included the requirement that frozen fillets of cod and haddock pack should not contain more than one small section of fish of less than 30 grams (or one ounce) unless special labelling provisions were complied with. The delegations of the Federal Republic of Germany and the Netherlands reserved their position because they were not convinced that special labelling requirements were necessary. The Committee agreed on this redraft of the definition and at the same time decided to move the description of processing techniques which were contained in the original version of the definition to the part of the standard which was dealing with the essential raw material and quality criteria.

In discussing forms of pack it was suggested that "cod fillet portions" and "haddock fillet portions" be included. Most delegations felt that it was not necessary to state a tolerance for weight as proper packaging and the use of adequate packaging material would prevent any loss during storage and distribution. The Committee was of the opinion that there was a need for developing a method on how to remove the glaze from a fillet before the determination of the weight. In discussing methods of analysis and sampling it was stated that the sample shall be defrosted at room temperature. In order to achieve harmonization, the delegation of Canada agreed to work out a plan for the examination of physical defects applicable to all standards for frozen fillets of fish. This would replace the present Appendix B on examination for physical defects. In discussing chemical examination attention was drawn to the significant differences in the result of TMA analysis according to the method used. None of the figures, as proposed by several countries and appearing in the Summary of Comments (Codex Fish 1/9), was, therefore, considered acceptable by the Committee. It was pointed out that at this time it was not possible to give a definite view on the value of TMA determination. Several delegations mentioned that the analysis of TMA and the use of this test will be discussed at the FAO Technical Conference on Fish Inspection and Quality Control to be held at Halifax, Canada, in July 1969. The Committee was, therefore, of the opinion that when the professional view of the experts would be available the paragraph on chemical examination should be revised accordingly.

Some delegations pointed to the need for a specification of the size of the sample to be used in cooking samples for organoleptic testing. It was agreed that in addition to steaming, baking and boiling in a bag could be used as cooking method.

18. The Committee noted that it might be necessary at a future session to consider the inclusion in this standard, and in other standards for quick frozen fish of provisions for packaging and instructions for storage, transportation and use on the lines of those in the General Standard for Quick Frozen Foods.

19. The delegation of the Netherlands stressed that in their opinion the designation "quick frozen" would have to be used for cod and haddock fillets and for other quick-frozen products. As the definition in this standard was not in contradiction with the definition included in the standard for quick-frozen foods, countries where there was a difference between frozen products and quick frozen products, including fish and fishery products, would want to designate a product which complied with the standard on quick-frozen products as "quick frozen" in order to safeguard the consumer. They would not allow products in their chain for distribution of quick-frozen foods if they were merely labelled "frozen". The Committee amended the labelling section of the standard to allow the product to be labelled "quick frozen" or "frozen" so that governments could choose which designation, if any, to use.

20. The Committee agreed that the Proposed Draft Provisional Standard on Frozen Fillets of Cod and Haddock which appears as Annex 4 to this Report should be submitted to the 6th session of the Codex Alimentarius Commission for consideration at Step 5 of the Procedure.

#### FROZEN FILLETS OF OCEAN PERCH AND OF PLAICE

21. The Committee considered what action should be taken with regard to the Proposed Draft Provisional Standards for Frozen Fillets of Ocean Perch (author country: Canada) and for Frozen Fillets of Plaice (author country: U.K.). It decided to ask the Secretariat in Rome to redraft these standards in the same format and including the same provisions as in the standard on Frozen Fillets of Cod and Haddock and agreed to move these standards to Step 3 of the Procedure for circulation and comments by governments.

#### SARDINES

22. The Committee considered the Memorandum on Sardines prepared by the Secretariat in Rome. Complying with the request in that Memorandum the following countries had submitted samples together with technical data sheets of their national production: Argentina, Canada, Denmark, France, Iceland, Japan, Mexico, Norway, Portugal, South Africa, Spain, Sweden, U.K. and the U.S.A. Delegations had an opportunity of visually and organoleptically inspecting these samples and to see the differences in various products as to the raw material used, the mode of preparation, taste and appearance. The view was expressed that the principal aim of any standard or standards for "Sardine" should be to protect the consumer and the promotion of international trade. A number of delegations stressed that traditionally in their countries canned products of various species of the Clupea family were called "Sardines" and that this name had become a common name. Other delegations stated that only the Sardina pilchardus (Walbaum) could be marketed as sardines.

23. In the discussion it was pointed out that the demonstration had shown clear differences in the products which was a result of the use of different species and of different processing methods. There was general agreement that the aim should be to protect consumers by labelling the products in such a way as not to be misleading although compositional standards would also be of benefit to them. Present labelling practice in some countries included the use of geographical prefixes e.g. Portuguese sardine, Maine sardine; in other countries it included the species e.g. Sild sardine as a prefix; both types of prefix were used in some countries. It was noted that the term "Sardines" without qualification was used in several countries to designate the species Sardina pilchardus (Walbaum) with the exclusion of any other species. The Committee recognized the importance of taking full account of traditional labelling practices when considering the protection of consumer in a particular country.

24. The delegations of Argentine and Cuba drew attention to their own national production which covered certain species of the Clupea and Engraulidae family. They asked that any standard to be developed by this Committee should also cover their products. It was agreed, however, that the question of an additional standard would have to be dealt with according to the Codex Alimentarius procedure.

25. After full discussion the Committee agreed that the best way of proceeding was to send out at Step 3 of the Procedure for government comments alternative proposed draft provisional standards which had been considered at previous meetings, namely a draft proposal prepared by the U.S. to cover all products and three drafts dealing separately with sardines, sild and brisling, prepared by OECD. The Secretariat in Rome was authorized to edit these documents in accordance with the Codex format and in particular to provide suitable headings to read: "Canned Sardines (Sild)" or "Canned Sardines (Brisling)", as appropriate which would make it clear that these proposals represented alternative approaches to the elaboration of standards for these products. The Committee agreed that governments should be asked to say which alternative method i.e.: one standard or two or more standards was preferred and also whether the draft dealt suitably with compositional requirements including those which were affected by variations in processing. The Committee agreed that in the labelling section of each draft standard the name of the product should be left open for further consideration in the light of government comments on present practice and how this might be dealt with in the future. It was also agreed that it would be of assistance to governments if the Memorandum on Sardines prepared by the Secretariat in Rome was circulated with the alternative proposed draft provisional standards.

#### CANNED HERRING

26. The Committee agreed that the question of a standard for Canned Herring which OECD had prepared should be considered at a later stage.

#### CANNED SHRIMPS AND PRAWNS

27. The Committee considered the Proposed Draft Provisional Standard for Canned Shrimps and Prawns at Step 4 of the Procedure in the light of government comments. The Committee had before it the standard as recast in the Codex format prepared by the author country, (U.S.). The Committee amended the definition section of the standard in accordance with the decision of the 5th Session of the Codex Alimentarius Commission (paragraph 173) to include the phrase: "processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage". The Committee agreed to include in the standard provisions relating to the use of colouring matters and was of the opinion that the question of iodoform could best be dealt with by providing that an excessive amount should be considered as a defect. The Committee gave further consideration to the figure for a minimum drained weight (container fill) and agreed to amend the figure to 60% of the water capacity and to ask governments to say whether this would be an acceptable figure for all type of products and sizes of shrimp. It was agreed to provide that the name of the product should be "shrimps" or "prawns" according to the custom and practice of the countries in which the product is distributed. Governments would be able to comment on this provision. Comments and figures were especially asked on the table of tolerances in particular with regard to shells, legs and antennae which would be applicable to all the types and sizes of shrimp.

28. In connection with the sampling method included in this and other standards the Japanese delegation reserved their position until they had been able to consider whether these methods took full account of statistical requirements.



29. The revised text of the standard appears as Annex 5 to this Report. The Committee agreed that this Proposed Draft Provisional Standard for Canned Shrimps and Prawns should be advanced to Step 5 of the Procedure for submission to the 6th session of the Codex Alimentarius Commission.

#### FOOD ADDITIVES IN FISH PRODUCTS

30. With regard to food additives the Committee had before it a working paper prepared by the Norwegian secretariat of the Committee summarizing the answers by governments to the request as to information on the lowest technologically justifiable level of use for benzoic acid and sorbic acid and their salts. Most countries had provided figures giving the highest permissible level according to their national legislation. It was pointed out that figures and information as to the actual levels of use would be useful. The working paper also drew the attention of delegations to the decisions and recommendations of the Codex Committee on Food Additives on those additives which were proposed for use in fish and fishery products.

See: (ALINORM 69/12, paragraphs 38 to 42. With regard to additives in the standard for Canned Shrimps and Prawns the complete excerpt of the above mentioned working paper is at the end of this Report).

31. The Committee noted the very useful document on all food additives proposed for use in fish and fishery products and contained in the Appendix on Additives to the General Standard on Fish, Crustaceans and Molluscs and Products thereof prepared by the Federal Republic of Germany. The Committee agreed that before sending this document for endorsement to the Codex Committee on Food Additives members of the Committee should be asked to comment on the proposed list of additives contained in the document. Comments should be sent before the end of March 1969 to the Chief delegate of the Federal Republic of Germany as mentioned in paragraph 5 of this Report. The comments made by Argentine would be taken into consideration when the revised Additive appendix was being prepared.

32. In connection with paragraph 56 of the Report of the Codex Committee on Food Additives (ALINORM 69/12) concerning mercury levels in food, especially fish, the Committee agreed to bring to the attention of the Directors General of FAO and WHO the urgency of this matter and the need for tolerance levels to be established.

#### CODES OF HYGIENE PRACTICE

33. The Committee considered the question concerning codes of hygiene practice referred to it by the Codex Committee on Food Hygiene in the reports of the fourth and fifth sessions of that Committee. The Codex Committee on Fish and Fishery Products noted that the work being carried out by FAO in collaboration with other organizations consisted in the elaboration of codes of technological practice for fish and fishery products and not codes of hygiene practice. In view of this the Codex Committee on Fish and Fishery Products agreed to request the Codex Committee on Food Hygiene to proceed with the elaboration of codes of hygiene practice for fish and fishery products. These Codes should deal with the handling of fresh and frozen fish at sea and on shore, with fresh and frozen processed fishery products, with canned products, with molluscan shellfish, with smoked and semi-preserved products and the existing draft on the sanitation and disinfection of fish plants should also be taken into consideration in the elaboration of these codes of hygiene practice.

The Committee was of the opinion that the draft codes of technological practice for fresh fish respectively frozen fish mentioned at the beginning of this report would be very useful as reference documents for the Codex Committee on Food Hygiene in the elaboration of codes of hygiene practice for fish and fishery products.

DATE AND PLACE OF NEXT SESSION

34. The Committee agreed that the next session of the Committee should be held in Bergen in October 1969, and that this suggestion should be brought to the attention of the Codex Alimentarius Commission.

Summary of points for action  
(Compiled by the Secretariat in Rome)

1. The Secretariat will submit to the sixth session of the Codex Alimentarius Commission (Geneva, 4-14 March 1969) standards at the following steps of the Procedure:
  - Canned Pacific Salmon at Step 8 (Annex 2 to this Report)
  - Frozen Guttled Pacific Salmon at Step 5 (Annex 3 to this Report)
  - Frozen Fillets of Cod and Haddock at Step 5 (Annex 4 to this Report)
  - Canned Shrimp and Prawns at Step 5 (Annex 5 to this Report)

Circular letters (CL's) will be sent out in respect of Step 5 Standards after the Session of the Codex Alimentarius Commission requesting governments and interested international organizations to comment on these standards.

2. Standards which the Committee decided to advance to Step 3 of the Procedure after having been recast and rearranged by the Secretariat:
  - Frozen Fillets of Ocean Perch (please see paragraph 21 of this Report)
  - Frozen Fillets of Plaice (please see paragraph 21 of this Report)
  - Sardines (please see paragraphs 22 to 25 of this Report)

These revised standards will be sent out by the Secretariat with Circular letters requesting comments by governments and interested international organizations.

3. Draft documents relating to a General Standard on Fish, Crustaceans and Molluscs (prepared jointly by the F.R. of Germany and the Netherlands). These documents which were distributed in advance of the third session of the Committee will be circulated again to the members of the Committee with a CL requesting comments which should reach the Chairman of the delegation of the F.R. of Germany before the end of March 1969 (please see paragraphs 5 and 31 of this Report).
4. OECD Draft Code of Practice for Frozen Fish. Comments should be sent to Dr R. Kreutzer, Department of Fisheries, FAO, Rome, not later than 15 June 1969 (please see paragraph 10 of this Report).
5. Matters referred to the Codex Committee on Food Hygiene:
  - request to make recommendations as to bacteriological examinations (determination of the presence of microorganisms in particular pathogens, international referee methods of analysis and sampling) for canned fish (please see paragraph 11, second sub-paragraph)
  - request to elaborate specific Codes of hygiene practice for fish as listed in paragraph 33 of this Report).
6. Separate CL's may be issued in connection with other matters contained in this Report and which are not covered by the above summary of points for action.

Excerpt of the working paper on  
Food Additives in Fish and Fish Products  
(CODEX FISH/ADDITIVES)

"Calcium disodium EDTA (paragraph 39 of ALINORM 69/12)

The Committee endorsed the proposal of 250 mg/kg in Canned Shrimps and Prawns with the reservations of Switzerland, the Federal Republic of Germany and Japan, who were of the opinion that, in view of the small ADI set for this additive, it should not be used if it can be replaced by some other additives with a larger ADI. The Committee agreed to draw the attention of the Codex Committee on Fish and Fishery Products to the small ADI and ask it to reconsider the figure of 250 mg/kg in this light. The delegation of France pointed out that it was not in the position at present to state its opinion in this matter because it wanted to consult with hygienists in its country."

Comment by the Secretariat: Calcium disodium EDTA is chemically ethylenediaminetetraacetic acid calcium disodium salt. ADI is synonymous with "Acceptable Daily Intake". The objection raised in the Food Additives Committee was that the level 250 mg/kg appeared high and that the use of EDTA should be avoided if it can be replaced by another chelating (anticrystallizing) agent. The members of the Codex Committee on Fish and Fishery Products should consider a lower figure or propose an alternative.

"Citric acid (paragraph 40 of ALINORM 69/12)

The Committee endorsed the use of citric acid (not limited) in Canned Shrimps and Prawns as proposed by the Codex Committee on Fish and Fishery Products. The Committee wished to be informed concerning levels used in good manufacturing practice because some delegations considered it necessary to set a maximum level of use for this additive."

Comment by the Secretariat: The use would be self-limiting, thus there may be no need to set a limit for citric acid for toxicological reasons.

"Orthophosphoric acid (paragraph 41 of ALINORM 69/12)

The Committee endorsed the proposal for 850 mg/kg in Canned Shrimps and Prawns, with the same reservation as made in paragraph 35."

Comment by the Secretariat: This endorsement is temporarily, and the reference to paragraph 35 points out that eventually an estimate of the total phosphorus intake will be made and that it may then be necessary to review some of the recommendations regarding phosphates as additives,

"Tartaric acid (paragraph 42 of ALINORM 69/12)

The Committee decided to refer the proposal for tartaric acid back to the Codex Committee on Fish and Fishery Products with the request that a figure should be set for the maximum level of use. This was found necessary in view of the comparatively small ADI set for this additive. The Committee also wished to be informed as to which isomers were used."

Comment by the Secretariat: The question put before the Codex Committee on Fish and Fishery Products is not only the need to propose a figure in view of the comparatively small Acceptable Daily Intake (so that the intake can be assessed), but also the question of the isomers used, DL-, L- or D-Tartaric Acids.

LIST OF PARTICIPANTS

COUNTRIES

ARGENTINA

Luis Ramon Vazquez (Chief Delegate)  
Director of Department of  
Marine Research,  
Secretaria de Estado de  
Agricultura y Ganaderia  
Buenos Aires

D.D. Wilson (Delegate)  
Assistant Chief  
Inspection Branch  
Pacific Region  
Department of Fisheries  
Vancouver, B.C.

Oscar Castro Gache (Delegate)  
Argentine Embassy  
Oslo.

C.H. Ashdown (Adviser)  
Export Sales Manager  
The Canadian Fishing Company Ltd.  
Vancouver, B.C.

AUSTRALIA

K.R. Constantine (Delegate)  
Deputy Chief Veterinary Officer  
Department of Primary Industry  
Canberra.

H.D. Pyke (Adviser)  
Vice President  
National Sea Products Ltd.  
Lunenburg, N.S.

BELGIUM

Dr. E. van Asse (Chief Delegate)  
Inspecteur  
Ministère de la Santé publique  
Bruxelles

J.A. Stewart (Adviser)  
General Sales Manager  
Connor Bros. Ltd.  
Black's Harbour, N.B.

W. Vyncke (Delegate)  
Scientific Assistant  
Ministry of Agriculture  
Fisheries Research Station  
Stadhuis, Oostende

B.G.R. Barton (Observer)  
Commercial Officer  
Canadian Embassy  
Oslo, Norway

CANADA

H.V. Dempsey (Chief Delegate)  
Director, Inspection Service  
Department of Fisheries  
Sir Charles Tupper Building  
Ottawa

CUBA

Manuel Gomez (Chief Delegate)  
Instituto Nacional de la Pesca,  
Habana

Nestor Ramirez (Delegate)  
Instituto Nacional de la Pesca  
Habana

J.P. Hennessey (Alternate)  
Chief, Inspection Branch  
Newfoundland Region  
Department of Fisheries  
St. John's Newfoundland

DENMARK

P.F. Jensen (Chief Delegate)  
Civiling.  
Fiskeriministeriets  
Industritilsyn  
Gothersgade 2, København K.

R.J. McNeill (Delegate)  
Chief, Inspection Branch  
Maritimes Region  
Department of Fisheries  
Halifax, N.S.

Villy Andersen (Adviser)  
Civiling.  
Den Kgl. Grønlandske Handel  
Strandgade, København K.

Erling Dyekjar Civiling. Dansk Fiskeriindustriforening Dyekjærs Hus, Esbjerg	(Adviser)	<u>ICELAND</u> Dr. Sigurður Pétursson Chief of Division Icelandic Fisheries Laboratories Department of Bacteriology Reykjavik	(Chief Delegate)
Jørgen Sieverts Director, Siviling. Foreningen for Danmarks Fiske-Konserves-Industri Borgergade 36, København K.	(Adviser)	Dr. E.M. Johannsson Chief Quality Controller Research Bureau - Fish Division Federation of The Iceland Cooperative Societies P.O. Box 180, Reykjavik	(Delegate)
<u>FRANCE</u> Mlle F. Soudan Chef du service de technologie et de controle Institute scientifique et technique des pêches maritimes 59 Ane Raymond Poincare, Paris 16eme	(Chief Delegate)	<u>IRELAND</u> S.O. Meallain Inspector and Engineer Department of Agriculture and Fisheries Cathal Brugha Street Dublin	(Delegate)
D. Remy Confédération des Industries de Traitement des Produits des Peches Maritimes 3, rue de Logelbach Paris, 17eme	(Delegate)	<u>JAPAN</u> Muneo Tanabe Counsellor of the Embassy of Japan Oslo, Norway	(Chief Delegate)
<u>GERMANY, FED. REP.</u> Dr. Bahr Ministerial Counsellor Bundesernährungs-Ministerium Bonn	(Chief Delegate)	Tadachi Imai Aquatic Product Section Fisheries Administration Division Fisheries Agency Ministry of Agriculture and Forestry Tokyo	(Delegate)
Dr. Schulte Ministry of Health Deutschherrenstrasse 92 Bad-Godesberg	(Delegate)	Makoto Yanamoto Chief of Fisheries Section Tokyo Export Commodities Inspection Institute Ministry of Agriculture and Forestry Tokyo	(Delegate)
Dr. Nicolaús Antonacopoulos Scientific Assistant Federal Research Board for Fisheries Institute for Biochemistry and Technology 2 Hamburg 50, Palmaille 9	(Delegate)	Yasufiro Kamokawa President of National Federation of the Fish Processor's Association Tokyo	(Adviser)
Dr. Joachim Genschow Director "Nordsee" GmbH 285 Bremerhaven	(Adviser)		
Dr. Seumenicht Director of the Federation of the German Fish Processing Industry 2 Hamburg 50, Museumstrasse 18	(Adviser)		

KENYA

Samuel Masita  
Fisheries Development Officer  
Quality Control  
Fisheries Department  
P.O. Box 241  
Nairobi

John Haug  
Fisheries Officer  
Quality Control  
Fisheries Department  
P.O. Box 241  
Nairobi

NETHERLANDS

Dr. O.H. Berben (Chief Delegate)  
Ministry of Social Affairs and  
Public Health  
Dr. Reyerstraat 10  
Leidschendam

Dr. J. van Mameren (Delegate)  
Director  
Fisheries Research Institute  
Haringkade 1,  
Ijmuiden

Dr. D.J. van Dijk (Adviser)  
Chairman  
Product Board for Fish and Fishery  
Products  
20 Wassenaarsweg, Haag

D.M. Ijsselstein (Adviser)  
Technical Director  
Iglo N.V.  
Neyennoord, Utrecht

NORWAY

E. Heen (Chief Delegate)  
Director  
Norwegian Fisheries Research  
Institute  
P.O. Box 187, Bergen

F.J. Grahl (Delegate)  
Chief Inspector  
Directorate of Fisheries  
P.O. Box 185, Bergen

P. Haram (Delegate)  
Legal Adviser  
Ministry of Fisheries  
Oslo

S.Skilbrei (Delegate)  
Chief Inspector  
Directorate of Fisheries  
P.O. Box 185, Bergen

O. Chr. Sundsvold (Delegate)  
Director  
Norwegian Quality Control  
Institute for Canned Fish  
Products  
Stavanger

K. Bakken (Adviser)  
Senior Scientific Adviser  
Norwegian Fisheries Research  
Institute  
P.O. Box 187, Bergen

F. Hansen (Adviser)  
Association of Fishing Vessel  
Owners  
Director  
Giertsen & Co. A/S,  
Slottsgt. 3, Bergen

C. Johnsen jr (Adviser)  
Union of Norwegian Exporters of  
Salted Herring  
Merchant  
Johnsen & Pedersen Sild-Export  
Christiesgt. 5-7, Bergen

O. Karsti (Adviser)  
Scientific-Adviser  
Norwegian Fisheries Research  
Institute  
P.O. Box 187, Bergen

M. Kjønnøy (Adviser)  
Norwegian Fishermen's Union  
Trondheim

Leif B. Knutrud (Adviser)  
Civil Engineer  
Frionor Norwegian Frozen  
Fish Ltd.  
Oslo

C.F. Kolderup (Adviser)  
Secretary General  
Norwegian Cannery Association  
Stavanger



T. Kvande-Pettersen Engineer Industrilaboratoriet A/S Kristiansund N.	(Adviser)	L. Torres Researcher Instituto Portugues de Conserv. de Peixe Av. 24 de Julho, 76 Lisboa	(..elegate)
J. Morland Head of Laboratory A/S Findus Hammerfest	(Adviser)		
O. Olsen Manager Union of Norwegian Codfish Exporters Bergen	(Adviser)		
<u>PERU</u>		<u>SOUTH AFRICA</u>	
Alfredo Bellido Delgado Technical Department Sociedad Nacional de Pesqueria P.O. Box 4545 Lima	(Delegate)	Prof. G.M. Dreosti Director of the Fishing Industry Research Institute Cape Town	(Observer)
<u>POLAND</u>		R.R. De Villiers Director of the Biological Sciences Division South African Bureau of Standards Pretoria	
E. Kordyl Sea Fisheries Institute Morski Instytut Rybacki Zakład Technologii Rybnej Al. Zjednoczenie 1 Gdynia	(Chief Delegate)	<u>SPAIN</u> Dr. D.G. del Real Gomez (Chief Delegate) School of Public Health Ciudad Universitaria Madrid	
Mrs. A. Kornecka Standards Division Quality Inspection Office Ministry of Foreign Trade Centralny Inspektorat Standaryzacji Ul. Stepinska 9 Warsaw	(Delegate)	J. Fernandez Espinosa (Delegate) Doctor Veterinario Ministerio de Comercio, Since Madrid - 20	
<u>PORTUGAL</u>		<u>SWEDEN</u>	
Dr. J. Freixo Técnico Comissao Reguladora de Comercio de Bacalhau - Alcantara Lisboa	(Chief Delegate)	Ake Folkving (Chief Delegate) Statens Jorbruksnämnd Fack 111 52 Stockholm 16	
W. Picniazek Quality Inspection Office Ministry of Foreign Trade Centralny Inspektorat Standaryzacji Ul. Polska 24 Gdynia	(Delegate)	Erik Christiansen (Adviser) Nordreco AB 267 00 Bjuv	
		Per Goll-Rasmussen (Adviser) Abba-Fyrtornet AB 450 40 Kungshamn	
		Gøsta Liljegren (Adviser) Svenska Konservkontrollen Fack 400 25 Gøteborg 52	

THAILAND

Y. Bunnag (Chief Delegate),  
Professor, Director-General  
Department of Science, Ministry  
of Industry  
Rama VI Street  
Bangkok 4

C. Ratanachai (Delegate),  
Director  
Food & Drugs Control Division  
Ministry of Health  
Bangkok

UGANDA

C.M. Dhatemwa (Delegate)  
Fisheries Officer  
Ministry of Animal Industry  
Game and Fisheries  
P.O. Box 7003  
Kampala

UNITED KINGDOM

I.G. Hanson (Chief Delegate)  
Chief Executive Officer  
Food Standards Branch  
Ministry of Agriculture  
Fisheries and Food  
Great Westminster House  
Horseferry Road  
London S.W. 1

Dr. A. Banks, Ph.D. (Delegate)  
F.R.I.C.  
Ministry of Technology  
Torry Research Station  
P.O.Box 31,  
Aberdeen

J.C. Early (Delegate)  
Ministry of Technology  
Humber Laboratory  
Wassand Street  
Hull

R.C.W. Banks (Adviser)  
Food Manufacturers' Federation  
4, Lygon Place,  
London S.W.1

J.R. Crook (Adviser)  
National Association of  
Frozen Food Producers  
Associated Fisheries and  
Foods Ltd.  
St. Andrews Dock, Hull

U.S.A.  
J.W. Slavin (Chief Delegate)  
Bureau of Commercial Fisheries  
U.S. Department of the Interior  
Washington, D.C. 20240

L.M. Beacham (Alternate)  
Food and Drug Administration  
U.S. Department of Health,  
Education, and Welfare  
Washington D.C. 20204

J.R. Brooker (Alternate)  
Bureau of Commercial Fisheries  
U.S. Department of the Interior  
Washington, D.C. 20240

C.R. Carry (Adviser)  
Tuna Research Foundation, Inc.  
Ferry Building  
Terminal Island, California  
90731

E.R. Kinney (Adviser)  
The Gordon Corporation  
P.O. Box 361  
Gloucester, Massachusetts  
01930

H.R. Robinson (Adviser)  
American Shrimp Cannery  
Association  
P.O. Box 50774  
New Orleans, Louisiana 70150

I.I. Somers (Adviser)  
National Cannery Association  
1133 Twentieth Street N.W.  
Washington, D.C. 20036

C.L. Stinson, Jr. (Adviser)  
Maine Sardine Council  
15 Grove Street  
Augusta, Maine 04330

J.L. Warren  
Maine Sardine Council  
15 Grove Street  
Augusta, Maine 04330

(Adviser)

Dr. C. Jardin  
Food Standards Officer  
FAO/WHO Food Standards Programme  
Rome

W.V. Yonker  
Association of Pacific Fisheries  
1600 S.Jackson Street  
Seattle, Washington 98144.

(Adviser)

WHO  
Dr. Z. Matyas  
Food Hygienist  
WHO

Eilert Holbeck  
Petersburg Processors Inc.  
Petersburg  
Alaska

(Observer)

Avenue Appia  
1211 Geneva 27, Switzerland

ORGANIZATIONS

A.I.P.C.E.E.

L. Abattucci  
Secretary General  
Association des Industries du Poisson  
de la Communauté Economique Européenne  
1, Avenue du Congo  
Bruxelles 5

(Observer)

N.M.K.

Hallstein Grønstøl  
Food Inspector  
Etne, Norway

(Observer)

E.E.C.

Margot Krohn  
Administrateur  
Commission des Communautés  
Européennes  
Division Produits de la Pêche  
Brussel 4, rue Stevin 125

(Observer)

FAO

R. Kreuzer  
Chief, Fishery Products and Marketing  
Branch  
FAO  
Rome

J. Nemeth  
Liason Offcier  
FAO/WHO Food Standards Programme  
Rome

DRAFT PROVISIONAL STANDARD ONCANNED PACIFIC SALMON

(Submitted to the Sixth Session of the Codex Alimentarius Commission at Step 8 of the Procedure for the Elaboration of Standards)

**I** DESCRIPTION

- (a) Canned Pacific Salmon is the processed flesh of any of the species of fish listed below, packed in hermetically sealed containers and processed by heat in an appropriate manner before or after being sealed in a container, so as to prevent spoilage : Oncorhynchus nerka, Oncorhynchus kisutch, Oncorhynchus tshawytscha, Oncorhynchus gorbuscha, Oncorhynchus keta, Oncorhynchus masou.
- (b) Styles
- (i) Regular Style - consists of canned salmon to which salt has been added
- (ii) No Added Salt - consists of canned salmon to which no salt has been added
- (c) Form of Pack
- (i) Regular Pack - shall consist of sections which are cut transversely from the fish and which are filled vertically into the can. The sections shall be packed so that the cut surfaces are approximately parallel with the ends of the container.
- (ii) Skinless and Boned Salmon - shall consist of regular pack canned salmon from which the skin and vertebrae have been substantially removed.
- (iii) Minced Salmon - shall consist of salmon which has been minced or ground.
- (iv) Salmon Tips or Tidbits - shall consist of small pieces of salmon.

**II** ESSENTIAL COMPOSITION AND QUALITY FACTORS

(i) Raw Material

Canned Pacific Salmon shall be prepared from clean, wholesome salmon.

(ii) Ingredients

- (a) Salt shall be edible grade sodium chloride
- (b) Oil - edible salmon oil comparable in colour, viscosity and flavour to the oil which would naturally occur in the product, may be added.

(iii) Processing

The fish shall have heads (including gills), tails, fins, loose scales, viscera and blood removed; damaged or discoloured flesh associated with bruises or small wounds shall be cut away; the fish shall be well washed; the body cavity thoroughly cleaned to remove blood and viscera; the fish shall be well packed, in accordance with the form of pack desired, in clean containers which are free from dents, rust or defective seams.

(iv) Canned Product

On opening the cans shall appear well filled with fish. The colour, texture, odour and flavour shall be characteristic of good quality canned salmon of the particular species. The bones shall be soft and the flesh shall be practically free from bruises, blood spots, honeycombing or abnormal colours. There shall be no hard bones, foreign material or foreign odours and flavours, in particular, there shall be no objectionable odours or flavours associated with decomposition. The contents shall be free from viscera and reasonably free from pieces of detached or loose skin or scales. In the case of regular packs, the sections of fish shall be arranged so that the cut surfaces are approximately parallel to the opened end and the skin side parallel to the walls of the can. Regular packs shall be reasonably free from cross packs and pieces of skin or section of the vertebrae across the top of the can.

III HYGIENE

It is recommended that the products covered by the provisions of this Standard be prepared in accordance with the General Principles of Food Hygiene developed by the Codex Committee on Food Hygiene.

IV LABELLING

- (a) The provisions of the General Standard for the Labelling of Prepackaged Foods apply. (2.1 - 2.9, 2.11 and 2.12).
- (b) The following specific provisions in respect of labelling of Canned Pacific Salmon have been endorsed by the Codex Committee on Food Labelling :
- (i) The name of the product shall be the designation appropriate to the species of fish packed :
    - (a) O. nerka as Sockeye Salmon or Red Salmon
    - (b) O. kitsutch as Coho Salmon or Silver Salmon or Medium Red Salmon
    - (c) O. tschawytscha as Spring Salmon, King Salmon or Chinook Salmon
    - (d) O. gorbuscha as Pink Salmon
    - (e) O. keta as Chum Salmon or Keta Salmon
    - (f) O. masou as Cherry Salmon
  - (ii) Except in the case of Regular Style and Regular Pack, the style and form of pack shall be declared as specified under I(b) and I(c).

- (iii) Each container shall be embossed or otherwise permanently marked in a code which identifies the cannery, species, and date of canning.

V METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

(a) Destructive Examination

All lots shall be sampled for examination of net weight, vacuum, and product quality in accordance with the Sampling Plans approved by the Codex Committee on Methods of Analysis and Sampling (ALINORM 69/27).

(b) Vacuum

Vacuum shall ordinarily be tested with the Bourdon tube gauge. Where there is any doubt that the vacuum is sufficient for shipment to hot climates or high altitudes, samples shall be tested by the Supplementary Vacuum Test, Appendix A.

(c) Product Quality

After examination for vacuum and net weight, the sample taken for destructive examination shall be examined organoleptically by persons trained in such examination.

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APPENDIX A

EXAMINATION OF THE CANNED PRODUCT

SUPPLEMENTARY VACUUM TEST

24 cans are incubated for 24 hours at 40°C. Vacuum is considered satisfactory if no cans become springers or swells and not more than one can becomes a flipper.

PROPOSED DRAFT PROVISIONAL STANDARD ONFROZEN GUTTED PACIFIC SALMON

(Submitted to the Sixth Session of the Codex Alimentarius Commission at Step 5 of the Procedure for the Elaboration of Standards)

I SCOPE

This Standard applies to fish of the designated species, with or without head, that have been eviscerated, washed, frozen and treated to protect the flesh from oxydation and dehydration. The standard has been developed for fish in bulk shipment.

II DESCRIPTION1. Definition

Frozen Guttet Pacific Salmon is the eviscerated carcass of any of the following species of fish which has been subjected to a freezing process in appropriate equipment : Oncorhynchus nerka, Oncorhynchus kisutch, Oncorhynchus tschawytscha, Oncorhynchus gorbuscha, Oncorhynchus keta, Oncorhynchus masou. The freezing operation should be carried out in such a way that the area of temperature of maximum crystallization is passed very quickly taking into account the dimension of the fish. The freezing equipment should be designed and operated in a manner to reduce the temperature to  $-18^{\circ}\text{C}$  or lower at the thermal centre of the fish after thermal stabilization. Storage of the fish should be carried out at  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) or lower with a minimum of fluctuation of this temperature. The transport and distribution should be carried out with equipment capable of maintaining the temperature of the fish at  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) or lower. A rise in the temperature of the fish may be tolerated for very brief periods, but the temperature of the surface of the fish should never be higher than  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ). The fish shall be glazed with ice or tightly wrapped in a membrane to protect its flesh from oxydation and dehydration.

2. Designation

(a) Frozen Guttet Pacific Salmon shall be designated as follows, according to the species of fish packed:

- (i) O. nerka as Sockeye Salmon or Red Salmon
- (ii) O. kisutch as Coho Salmon or Silver Salmon
- (iii) O. tschawytscha as Spring Salmon or King Salmon or Chinook Salmon
- (iv) O. gorbuscha as Pink Salmon
- (v) O. keta as Chum Salmon or Silverbright Salmon
- (vi) O. masou as Cherry Salmon

- (b) Frozen Guttet Pacific Salmon shall be designated as "Dressed Headless" or "Dressed Head-on".

### III ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 1. Raw Materials

Frozen Guttet Pacific Salmon shall be prepared from sound fish which have been eviscerated.

#### 2. Final Product

The fish shall have the gills and gill rakers removed. Removal of the head is optional. The body cavity shall be opened by cutting through the body wall along the ventral line from the anus to the throat. The viscera and blood along the backbone of the fish shall be removed. The body cavity shall be thoroughly cleaned and the entire carcass shall be well washed. The final product shall have a straight longitudinal axis. It shall be free from poisonous or harmful substances. The defects defined in paragraph 3 may not exceed the limits specified for them in paragraph 4.

#### 3. Definition of Defects

##### (a) Physical defects

Body deformation - refers to deformation of the back (humpback) and the head (hooked snout) as a result of the extension of cartilaginous material in these areas as the fish approaches spawning condition.

Damage to protective coating - voids in the ice glaze or tears in the covering membrane.

Dehydration or freezer burn - refers to loss of moisture from the surface tissue resulting in a dry, porous or spongy condition and to oxidation of the surface tissue.

##### Surface defects -

- (i) bruises - refers to readily discernible discolouration caused by diffusion of blood in the flesh;
- (ii) cuts, wounds and other skin breaks - refers to readily discernible damage caused by predators, fish nets and poor handling;
- (iii) discoloured skin - refers to discolouration of the skin which occurs as the fish approaches spawning condition.

##### Gutting and cleaning defects -

- (i) gill and body cavity cuts - refers to misplaced cuts made during gutting;



- (ii) viscera - refers to incomplete removal of the viscera;
- (iii) improper washing - refers to inadequate removal of slime, blood and bits of viscera from the surface of the fish and from the body cavity;
- (iv) bellyburn - refers to readily discernible enzymatic damage to the tissues in the area of the belly cavity and is usually accompanied by a sour odour.

(b) Defects of odour

Odour defects - refers to stale, rancid, sour or other objectionable odours indicative of decomposition or contamination.

4. Tolerances

(a) Physical defects

Each fish in a sample withdrawn for examination shall be examined for the physical defects listed and scored accordingly. The lot is considered acceptable with respect to physical defects if the average demerit per fish, calculated by dividing the total demerits by the number of fish in the sample, is two or less.

<u>Defects</u>	<u>Demerit points</u>
<u>Body deformation:</u>	
Humpback	2
<u>Damage to protective coating:</u>	
3-10% of the surface area exposed	0.5
over 10% of the surface area exposed	1
<u>Dehydration or freezer burn:</u>	
3-10% of the surface area affected	2
over 10% of the surface area affected	3
<u>Surface defects:</u>	
bruises	1
cuts, wounds and other skin breaks	2
discoloured skin	0.5
<u>Gutting and Cleaning:</u>	
gill and body cavity cuts	1
viscera	3
improper washing	2
<u>Belly burn:</u>	3

(b) Defects of Odour

Each fish in the sample shall be free from any objectionable odours resulting from decomposition or contamination.

IV HYGIENE

It is recommended that the products covered by the provisions of this Standard be prepared in accordance with the General Principles of Food Hygiene developed by the Codex Committee on Food Hygiene.

V LABELLING

The name of the product is the name prescribed for the particular species under Designation, preceded by the word "frozen" and followed by the words "Dressed Headless" or "Dressed Head-on" as appropriate.

VI METHODS OF ANALYSIS AND SAMPLING

The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

1. Sampling

An initial random sample of frozen salmon shall be withdrawn according to the following table:

<u>Number of fish in lot</u>	<u>Number of fish in sample</u>
15 to 50	2
51 to 150	4
151 to 500	6
501 to 1,500	8
1,501 and over	12

In a lot of salmon where each fish weights 5.5 kilograms (twelve pounds) or less, this table applies. However, where the salmon weigh over 5.5 kilograms (twelve pounds) each, the number of samples shall be reduced so that the total weight of the samples shall not be greater than the number of fish indicated in the table multiplied by 5.5 kilograms (twelve pounds).

If a lot does not meet this standard on the basis of examination of the initial sample, the lot may, at the request of the buyer or seller, be resampled, in which case the sample size (initial sample plus resample) shall be increased to a total of twenty fish. The average demerit per fish shall be determined from the total demerits for the twenty fish.

2. Examination

The frozen samples shall be examined for damage to the protective coating,

body deformation and dehydration or freezer burn.

The samples shall be thawed and examined for surface defects, gutting and cleaning defects, belly burn, and odour defects.

PROPOSED DRAFT PROVISIONAL STANDARD ONFROZEN FILLETS OF COD AND HADDOCK

(Submitted to the Sixth Session of the Codex Alimentarius Commission at Step 5 of the Procedure for the Elaboration of Standards)

I DESCRIPTION1. Definition

- (a) Frozen fillets of cod and haddock are obtained from fish flesh of the following species: Cod: *Gadus morhua* L. (synonym *Gadus callarias* L.), *Gadus ogac*, and *Gadus macrocephalus*; Haddock: *Melanogrammus aeglefinus*.
- (b) Fillets are slices of fish of irregular size and shape which are removed from the carcass by cuts made parallel to the backbone. The fillets may be cut into sections in order to facilitate packing in suitable sizes of consumer packs. The boning may be complete including pin bones, or in part leaving pin bones in. More than one small sections of less than 30 grams or 1 oz in weight may be included in the package only if the product is labelled according to the provisions of paragraphs 2(v) and V(i).
- (c) "Frozen" means that fillets have been subjected to a freezing process in appropriate equipment. This freezing operation should be carried out in such a way that the area of temperature of maximum crystallization is passed very quickly taking into account the dimension of the fish. The freezing equipment should be designed and operated in a manner to reduce the temperature to  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) or lower at the thermal centre of the fish after thermal stabilization. Storage of the product should be carried out at  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) or lower with a minimum of fluctuation of this temperature. The transport and distribution should be carried out with equipment capable of maintaining the temperature of the fish at  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) or lower. A rise in the temperature of the fish may be tolerated for very brief periods, but the temperature of the surface of the fish should never be higher than  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ).

2. Form of Pack

- (i) Fillets - Skin-on Scaled, shall be sound fillets, cut neatly and cleanly, being without excessive flap and practically free of scales.
- (ii) Fillets - Skin-on Unscaled, shall be sound fillets, cut neatly and cleanly and without excessive flap.
- (iii) Skinless fillets shall be sound fillets with the skin removed.
- (iv) Skinless and Boneless Fillets shall be sound fillets with the skin and bones, including pin bones, removed.

- (v) Cod fillet portions or haddock fillet portions shall be skinless and boneless fillets without any limit with regard to the number and size of small sections in the package.

## II ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 1. Raw Material

Frozen fillets of cod and haddock must be prepared from sound fish of the respective designated species and which is of a quality such as to be fit to be sold fresh for human consumption. The fillets shall be free from all internal organs, fins, and abnormally discoloured flesh.

### 2. Final Product

- (i) After cooking by steaming, baking or boiling, as set out in Appendix C, the product shall have a flavour characteristic of the species and shall be free from any objectionable flavours and odours, and its texture shall be firm and not tough, soft or gelatinous.
- (ii) The final product shall conform with the test for physical defects as set out under paragraph VI(3) of this standard.

## III FOOD ADDITIVES

The following provisions in respect of food additives are subject to endorsement by the Codex Committee on Food Additives; they may be used singly or in combination :

sodium or potassium tri-polyphosphates	)	maximum
sodium hexametaphosphate	)	5g/kg
sodium pyrophosphate	)	

## IV HYGIENE

It is recommended that the products covered by the provisions of this Standard be prepared in accordance with the General Principles of Food Hygiene developed by the Codex Committee on Food Hygiene.

### V LABELLING

- (a) The provisions of the General Standard for the Labelling of Prepackaged Foods apply. (2.1 - 2.9, 2.11 and 2.12).
- (b) The following specific provisions in respect of labelling of Frozen Fillets of Cod and Haddock have been endorsed by the Codex Committee on Food Labelling:
  - (i) The name of the product is "cod fillets", "haddock fillets", "cod fillet portions" or "haddock fillet portions", as appropriate;
  - (ii) the name and the description of the product may include fillets skin-on, skinless, skinless and boneless, as appropriate;

- (iii) The net weight shall be exclusive of the weight of glaze;
- (iv) There may be an indication in code or in clear of the date of production, that is, the date the final product was packaged for final sale.
- (v) "Frozen" or "quick-frozen" may appear as part of the name of the product.

## VI METHODS OF ANALYSIS AND SAMPLING

1. The methods of analysis and sampling described hereunder are international referee methods which are to be endorsed by the Codex Committee on Methods of Analysis and Sampling.

2. Method of Sampling and Preparation of Sample

Sampling shall be carried out in accordance with the Sampling Plans approved by the Codex Committee on Methods of Analysis and Sampling (ALINORM 69/27).

The sample shall be defrosted by thawing at room temperature.

3. Examination for Physical Defects

The sample shall be examined for physical defects according to the general plan being developed for frozen fish standards for fillets.

4. Chemical Examination

The determination of trimethylamine (TMA) nitrogen or total volatile basic (TVB) nitrogen content of fish muscle may be used as an additional test to supplement sensory evidence of decomposition. Where there is sensory evidence of decomposition or TMA nitrogen content in excess of (x) mg per 100 g, it will mean that the sample does not comply with the standard.

5. Organoleptic Examination

Organoleptic assessment shall take place after reasonable quantities of the sample (remaining after chemical analysis and examination for physical defects) have been cooked by the approved method set out in Appendix C.

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(x) to be further considered

APPENDIX C

COOKING METHODS

STEAMING

Steam in a closed dish of 7 inches (17.8 cm) in diameter over boiling water for 35 minutes or for 18 minutes after thawing the product.

The dish should be covered and should be kept in a water bath at +60°C (+140°F) during testing.

BAKING

Baking pans, approximately 12" x 8" x 2 1/2", are lined with aluminium foil. The sample is placed in the pan and a cover is made by crimping an additional sheet of aluminium foil around the edges of the top of the pan. The pan is placed in an oven that has been pre-heated to 232°C (450°F), for 20 minutes or until cooking has been completed.

BOILING IN BAG

Place the thawed sample into a boilable film-type pouch and seal. Immerse the pouch and its contents into boiling water and cook until the internal temperature of the fillet sample reaches 160°F, which requires about 20 minutes.

PROPOSED DRAFT PROVISIONAL STANDARD ONCANNED SHRIMP AND PRAWNS

(Submitted to the Sixth Session of the Codex Alimentarius Commission at Step 5 of the Procedure for the Elaboration of Standards)

**I** SCOPE

This standard applies to canned shrimp or canned prawns in transparent or non-transparent containers, and does not apply to speciality products where the shrimp or prawns constitute but a portion of the edible contents.

**II** DESCRIPTION**1.** Definition

Canned shrimp or prawns is the processed flesh of shrimp or prawns of the Penaeid, Pandalid, Crangonid, and Palaemonid species in any combination of the species of similar size. The prepared product in various packing media is processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

**2.** Designation

The product shall be designated and labelled under the name SHRIMP or under the name PRAWNS.

**3.** Styles

- (a) Conventional, or regular - shrimp or prawns which have been peeled and subsequently canned without intentional removal of the dorsal tract.
- (b) Cleaned, or deveined - shrimp or prawns which have been peeled and in addition the back has been cut open and the dorsal tract removed at least up to the last segment next to the tail.

**4.** Type

Wet pack - in addition to the meat of the shrimp or prawns, the container contains a liquid in sufficient volume to cover the shrimp or prawns.

**5.** Sizes

Canned shrimp or prawns in either "conventional" or "cleaned" styles may be designated as to size in accordance with the following :



Size Designation	Number of shrimp or prawns per ounce of drained weight		Number of shrimp or prawns per 100 g of drained weight	
	Conventional	Cleaned	Conventional	Cleaned
Extra Large or Jumbo	Less than 3.5	Less than 3.8	Less than 12.3	Less than 13.4
Large	3.5 to 5 inclusive	3.8 to 5.4 inclusive	12.3 to 17.7 inclusive	13.4 to 19.1 inclusive
Medium	More than 5 but not more than 9	More than 5.4 but not more than 9.8	17.7 to 31.8 inclusive	19.1 to 34.6 inclusive
Small	More than 9 but not more than 17	More than 9.8 but not more than 18.4	31.8 to 60 inclusive	34.6 to 65.3 inclusive
Tiny or Minuscule	More than 17	More than 18.4	More than 60	More than 65.3

- (a) Broken shrimp or broken prawns are pieces of the product consisting of less than four segments. Such pieces may occur within the various size designations provided they do not occur in excess of the tolerance provided in III.3(vii). When pieces are packed as a separate class of merchandise they shall be designated BROKEN SHRIMP or PIECES OF SHRIMP, or BROKEN PRAWNS or PIECES OF PRAWNS.
- (b) Sizes, as designated in the preceding chart, shall consist of whole shrimp or whole prawns and shall not contain pieces in excess of the tolerance provided in III.3(vii).

### III ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 1. Ingredients

The packing medium consists of water and salt. Lemon juice, sugar and other food grading ingredients may be also added.

#### 2. Raw Material

Canned shrimp or prawns are prepared from fresh, frozen or cooked shrimp or prawns, free from decomposition and suitable for human consumption.

#### 3. Finished Product

##### (i) Appearance

Clean and prepared with care. Good (firm) sinuosity making them

appear curved. Appetizing appearance. Uniform colour characteristic of the species and habitat or areas from which harvested even in case of artificial coloration. Not smeary; at most a bit sticky. Colour of flesh is clear and typical of shrimp or prawns suitably processed.

(ii) Flavour

Canned shrimp or prawns shall be free from objectionable flavours of any kind. The presence of excessive iodoform constitutes a defect.

(iii) Odour

Canned shrimp or prawns shall have a good characteristic odour and shall be free of objectionable odours. The presence of a natural odour reminiscent of iodoform, is not a defect of flavour.

(iv) Texture

Canned shrimp or prawns characteristically are not tough. They shall be relatively firm and free from mushiness.

(v) Peeling

Canned shrimp or canned prawns shall be practically free of body shell, legs, antennas and heads, and the presence of such objects shall not exceed the tolerance provided in III.3(vii).

(vi) Packing Media

The brine tends to thicken or jell at temperatures below 65°F (18.3°C). When containers are examined at temperatures above 68°F (20°C) the liquid will flow and will be characteristically cloudy to clear. It will not be dark in appearance. If a jelled media be encountered, it shall be cloudy to clear and shall not be dark in appearance.

(vii) Tolerances

Cleaned and deveined canned shrimp or prawns will be allowed average tolerances as indicated below:

Size Designation	Shells, Legs, Antennas		Broken (pieces) % by weight	Improperly cleaned and deveined * % by weight	Size (count) Deviation % by number
	No/oz	No/100g			
Extra Large or Jumbo			5%	5%	10%
Large			5%	5%	10%
Medium			5%	5%	10%
Small			10%	5%	10%
Tiny or Minuscule			15%	5%	10%

\* only applies to cleaned or deveined style.

IV FOOD ADDITIVES

The following provisions in respect of food additives are subject to endorsement by the Codex Committee on Food Additives:

- (1) calcium disodium EDTA: maximum 250 mg/kg (temporarily endorsed)
- (2) orthophosphoric acid: maximum 850 mg/kg (temporarily endorsed)
- (3) citric acid ..... (figure to be stated)
- (4) tartaric acid ..... (figure to be stated)
- (5) colours:

Carotin or Carotinoid	CI No 75130
Tartrazin	19140
Meta-Orange	15980
Nykochin	16255
Ponceau 6 R	16290
Karmosin	14720
Erythrosin	45430
Amaranth	16185
Sunset yellow FCM	15985

Colour or mixtures of colours may be used at a maximum level of 30 ppm

V CONTAMINANTS

Pesticide Residues shall not exceed those permitted by the Codex Committee on Pesticide Residues.

VI HYGIENE

It is recommended that the products covered by the provisions of this

Standard be prepared in accordance with the General Principles of Food Hygiene developed by the Codex Committee on Food Hygiene.

VII WEIGHTS AND MEASURES

1. Minimum Total Fill

In addition to the meat of the shrimp or prawns, the container will contain packing medium in sufficient volume to fill the voids and to cover the shrimp or prawns.

2. Minimum Drained Weight

Containers shall be filled so that the cut-out weight of the shrimp or prawns will be not less than 60% of the water capacity of the container.

VIII LABELLING

(a) The provisions of the General Standard for the Labelling of Prepackaged Foods apply. (2.1 - 2.9, 2.11 and 2.12).

(b) In addition the following specific provisions also apply:

1. Name of Food

The product may be labelled either as SHRIMP or PRAWNS provided that such labelling conforms to the custom and practice of the country in which the product will be distributed, and further provided that the size of the product will not be misleading to the purchaser because of its designation.

(i) Style

The style of pack need be declared only when the contents are of of the cleaned or deveined style. Unless so specifically designated, the canned shrimp or prawns will be considered to be of the conventional, or regular, style of pack.

(ii) Type

The type of pack may be declared.

(iii) Size

(1) If the canned shrimp or prawns are labelled as to size, the size must comply with the provisions of II.5.

(2) Broken shrimp or broken prawns must be labelled and identified as BROKEN SHRIMP or BROKEN PRAWNS, or alternatively as PIECES OF SHRIMP or PIECES OF PRAWNS.

2. Quantity of Contents

The contents of each container shall be declared upon the label. The contents shall be expressed as "Drained Weight" or as "Net Contents", or both. Weights may be expressed in ounces or in grams, or both.

3. Coding

All containers shall be permanently marked to indicate the producing firm, the date of production, and the contents of the container. This may be accomplished either in clear or in code.

IX METHODS OF ANALYSIS AND SAMPLING

1. Sampling

Representative samples of a lot shall be examined to determine compliance with all the requirements herein. Samples for compliance determination shall be drawn in accordance with the sampling plan as prescribed by the Codex Committee on Methods of Analysis and Sampling.

2. Methods

Methods of Measurement for Weights and Measures Criteria

(1) Drained Weight or Net Drained Weight

Fill of container compliance shall be determined by averaging the results from all containers of a sample representing a lot:

Provided that there is no unreasonable shortage in individual containers.

- (a) The drained weight shall be determined by keeping the unopened containers at a temperature of not less than 68 nor more than 75°F (not less than 20 or more than 23.9°C) for a minimum of 12 hours immediately prior to examination.
- (b) After opening, tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has been previously weighed. Some canned shrimp may contain a jelled media due to canning shrimp from Northern Pacific waters.
- (c) Incline the sieve at an angle of approximately 45 degrees and allow the shrimp or prawns to drain for two minutes as measured from the moment they are dumped into the sieve.
- (d) Weight the sieve containing the drained product. Subtract the weight of the sieve. The resultant figure shall be considered to be the drained weight of the shrimp or prawns.

NOTE: This procedure for determining drained weight is not workable when the packing media is jelled as a result of canning shrimp from Northern Pacific waters. Experimental work is being conducted to develop a suitable procedure and the collaboration of it with the above procedure IX.2(b). When the results of this research are available, they will be given to the Codex Committee on Fish and Fishery Products.

(2) Net Contents or Net Weight

- (a) Net contents shall be determined by first weighing the unopened container.
- (b) Open the container, then pour out the contents and allow the container to drain for two minutes.
- (c) Weigh the empty container, including the top.
- (d) Subtract the weight of the empty container from the weight of the unopened container. The resultant figure shall be considered to be the net contents.

(3) Specification for Circular Sieve

- (a) If the quantity of the total contents (net contents) of the container is less than 1.36 kg (3 pounds), use a sieve with a diameter of 20.3 cm (8 inches).
- (b) If the quantity of the total contents (net contents) of the container is 1.36 kg (3pounds) or more, use a sieve with a diameter of 30.5 cm (12 inches).
- (c) The meshes of such sieve are made by so weaving wire of 1.00 mm (0.0394 inches) diameter so as to form square openings 2.38 mm (0.0937 inches) by 2.38 mm (0.0937 inches).

Methods of Determining Water Capacity of a Container

The general method of determining the water capacity of containers is as follows:

- (1) In the case of a container with lid attached by double seam, cut out the lid without removing or altering the height of the double seam. Wash, dry, and weight the empty container. Fill the container with distilled water at 20°C (68°F) to 5 mm (3/16 inches) vertical distance below the top level of the container, and weigh the container as thus filled. Having followed the above steps, subtract the weight of the empty container from the weight of the filled container. The difference shall be considered the weight of water required to fill the container.
- (2) In the case of a container with lid attached otherwise than by double seam, remove the lid. Wash, dry, and weight the empty container. Fill the container with distilled water at 20°C (68°F) to the level of the top thereof, and weigh the container as thus filled. Having followed the above steps, subtract the weight of the empty container from the weight of the filled container. The difference shall be considered the weight of water required to fill the container.

(3) Size determination

Size compliance shall be determined by averaging the results from all containers of a sample representing a lot: Provided that there is no unreasonable deviation in individual containers.

After weighing, count the number of shrimp or prawns which were in the container. Divide that number by the drained weight. The resultant figure should be compared to the chart under II.5. A tolerance will be allowed as indicated in III.3.(vii).