

codex alimentarius commission

FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD HEALTH
ORGANIZATION

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ALINORM 79/18

CODEX ALIMENTARIUS COMMISSION
Thirteenth Session
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REPORT OF THE THIRTEENTH SESSION OF THE
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS
Bergen (Norway), 7-11 May 1979

INTRODUCTION

1. The Codex Committee on Fish and Fishery Products held its thirteenth session in Bergen, Norway, from 7-11 May 1979 by courtesy of the Government of Norway. Dr. O.R. Braekkan, Norway, was in the chair. The Chairman particularly welcomed the delegates of Cameroon and Kuwait whose countries were represented for the first time.

2. The participants were welcomed on behalf of Mr. Hallstein Rasmussen, Director-General of Fisheries, by the Deputy Director Mr. Viggo Jan Olsen, who emphasized the importance the Government of Norway placed on the work of the Joint FAO/WHO Food Standards Programme with regard to consumer protection and international trade.

3. The session was attended by Government delegations from the following 32 countries: -

Australia	India	Poland
Belgium	Ireland	Portugal
Brazil	Italy	Spain
Cameroon	Japan	Sweden
Canada	Kuwait	Switzerland
Czechoslovakia	Morocco	Thailand
Denmark	Netherlands	United Kingdom
Finland	New Zealand	United States of America
France	Nigeria	Uruguay
Germany, Fed.Rep.of	Norway	South Africa (Observer)
Iceland	Peru	

Observers were present from the following eight international organizations:

Association des Industries de poisson de la CEE (AIPCEE)
Association of Official Analytical Chemists (AOAC)
European Economic Community (EEC)
International Association of Pectin Producers (IPPA)
International Institute of Refrigeration (IIR)
Institut Européen des Industries de la Gomme de Caroube (INEC)
Organisation of Cellulose Gum Manufacturers (OFCA)
Marinalg International

The list of participants including officers from FAO and WHO is contained in Appendix I to this Report.

ELECTION OF RAPORTEURS

4. On the proposal of the Chairman, Mr. I.M.V. Adams (United Kingdom) and Mlle F. Soudan (France) were appointed as rapporteurs to the session.

ADOPTION OF THE AGENDA

5. The Agenda was adopted with a minor modification in the order of items to be discussed.

STATEMENT OF THE REPRESENTATIVE OF WHO

6. The representative of WHO recorded relevant WHO activities. He referred to a Joint FAO/WHO consultation held late 1977 which had identified the essential objectives of national food control programmes. The proposed strategy was further discussed by the Joint FAO/WHO Food Standards Regional Conference for Latin America in 1978 and by the second session of the Codex Coordinating Committee for Asia in 1979.

7. The World Health Assembly at its session in May 1978 had considered the WHO programme in food hygiene and that concerning zoonoses and related foodborne diseases. The Assembly laid strong emphasis on the further development of these programmes.

8. A FAO/WHO Working Group on Microbiological Criteria for Foods met in Geneva early 1979. The group redefined the various kinds of criteria as referred to in the draft of the "General Principles for the Establishment and Application of Microbiological Criteria for Foods" dividing these criteria in (1) mandatory microbiological standards to be used in Codex Alimentarius Standards and those of an advisory nature for use either as (2) microbiological end-product specifications for application at importation or (3) microbiological guidelines to be applied in the establishment to monitor hygiene and as a guide to the manufacturer.

9. An Expert Consultation on Paralytic Shellfish Poisoning was held at the FAO/WHO Collaborating Centre in Berlin (West) in late 1978. The Consultation discussed the problem in detail and made recommendations for further research, national programmes and for actions to be taken by WHO in this field.

10. Reference was also made to development within the Joint FAO/WHO Food and Animal Feed Contamination Monitoring Programme, the WHO Diarrhoeal Diseases Control Programme, the WHO Food Virology Programme, the WHO Surveillance Programme for Control of Foodborne Infections and Intoxications in Europe, the FAO/WHO Food Inspectors Manual presently under preparation, and to the establishment of a network of WHO centres for prevention and control of zoonoses and foodborne diseases.

STATEMENT BY THE REPRESENTATIVE OF THE FAO FISHERIES DEPARTMENT

11. The Representative of the FAO Fisheries Department informed the Committee of some of the activities of the fish utilization and marketing service, which had taken place since the last meeting such as: A Technical Consultation on the South American Hake Industry, A Seminar of Senior Fish technologists in West Africa and a Symposium on Fish Utilization and Marketing in Manila. A number of investigative programmes stemming from these meetings and other initiatives of the Department to promote regional cooperation in fish technology research are now under way. A second seminar for fish technologists will take place later this year in West Africa to discuss progress.

12. The Representative mentioned FAO's programme of work on the utilization of small pelagic fish for human consumption and informed the Committee that a government/technical consultation on this subject may take place in 1980/81. He also outlined one phase of FAO's programme on fish marketing for Latin America, "INFOPESCA", which gave information to member countries on prices, markets, market opportunities and promoted Latin American products.

13. He emphasized the need to have the codes of practice applied to the fishing industry and informed the Committee of some of the initiatives taken by the Department to develop training aids in this area. An illustrated guideline on fish processing plant hygiene and a filmstrip on sanitary control in fish processing plants was in preparation, and a series of filmstrips on fish handling and processing in tropical countries would be filmed in June of this year. Two completed filmstrips "A Question of Quality" and "Quality Control in Fish Plants" were now available and were shown to the Committee.

14. A Code of Practice for Cephalopods had been prepared, was currently under review and would be submitted to the Committee for consideration at its next meeting. It will also be issued as an FAO Fisheries Circular.

15. The Representative informed the Committee of the Department training activities in the field of fish technology, inspection and quality control, and mentioned that a training course on fish processing and freezing will take place in June 1979 in Mali, sponsored by CEAO (Commission Economique de l'Afrique d'Ouest) and that workshops on Fish Technology and Quality Control would be held for the Latin American and Caribbean Regions in English and Spanish in mid 1980.

16. Work on fisheries taxonomy was continuing. Fisheries identification sheets for the WECAF (Western Central Atlantic Fisheries Commission) area had just been issued and others were in preparation. A number of world lists giving the taxonomic and common names in English, French and Spanish of fish of commercial importance were being prepared by the Fisheries Division. It was hoped that the first list "Shrimps of the World" would be published by the end of the year.

17. In conclusion the Representative indicated that a computerized directory of fish inspection and quality control agencies/institutions was in preparation and that members of the Committee would be receiving a questionnaire on the subject.

REVIEW OF MATTERS RELEVANT TO THE COMMITTEE AS DISCUSSED BY THE CODEX ALIMENTARIUS COMMISSION AND VARIOUS CODEX COMMITTEES

Codex Alimentarius Commission (12th Session - ALINORM 78/41)

18. The Committee noted that the Commission had advanced the following to Step 9 of the Procedure for the elaboration of Worldwide Standards:

- Draft Standard for Quick Frozen Fillets of Hake
- Draft Standard for Quick Frozen Lobsters
- Draft Code of Practice for Frozen Fish
- Draft Code of Practice for Shrimp or Prawns

and the following to Step 6:

- Proposed Draft Code of Practice for Lobsters
- Proposed Draft Code of Practice for Salted Fish

REVIEW OF THE DIRECTION OF THE WORK OF THE COMMITTEE

19. The Commission noted that the work of the Committee was recognized as being of considerable importance to both developing and developed countries and that the present programme of work met with general approval. Governments, in particular those of developing countries, were requested to present proposals they might have for new work for consideration by this Committee at its present session.

20. The Commission had also decided to make the work of the Codex more relevant to developing countries by amending the procedure for the elaboration of worldwide Codex Standards. This would allow for specific comments from countries on the implications which proposed Draft Standards might have for their economic interests. It required that the Commission when making decisions at Step 5 of the Codex Procedure should take into account comments submitted by Governments on the possible economic impact of any of the provisions of the Standard.

JOINT ECE/CODEX ALIMENTARIUS GROUP OF EXPERTS ON STANDARDIZATION OF QUICK FROZEN FOODS (ALINORM 79/25)

21. The Group of Experts was informed that the Codex Committee on Fish and Fishery Products had noted the work of the Group on temperature/time effect on quality and was following developments in the Group of Experts on this subject. The final report of the Working Group on Temperatures and Quality of Quick Frozen Foods would be submitted to the Group of Experts at its 13th Session.

Codex Committee on Food Hygiene

DRAFT CODES OF PRACTICE FOR SMOKED FISH, LOBSTERS AND SALTED FISH

22. There was considerable discussion on the Code of Practice for Smoked Fish, particularly with regard to the safe temperature for storage of vacuum or gas-packed products. It was generally accepted that the form of packaging required low temperature storage to prevent the possible development of Clostridium botulinum in some types of smoked fish. An amended wording was therefore proposed for sub-section 4.4.5.3 for the storage of vacuum or gas-packed products at appropriate safe temperature. The hygiene requirements for the above Codes of Practice were then endorsed as amended with the proviso that if any changes to the hygiene provisions were made during the present session of this Committee these should again be referred to the Codex Committee on Food Hygiene.

RECOMMENDED INTERNATIONAL CODE OF PRACTICE FOR SHRIMP OR PRAWNS

23. It was noted that the Second Joint FAO/WHO Expert Group on Microbiological Specifications for Foods (EC/Microbiol/77/Report 2, pages 3-5) had recommended microbiological specifications for frozen, cooked, ready-to-eat shrimps and peeled prawns and that the microbiological limits recommended be referred to this Committee for consideration. It was also suggested that a copy of the Report of the Geneva Working Group on Microbiological Criteria for Foods (see statement of WHO representative, para 8) which would contain the Revised General Principles for the Establishment of Microbiological Criteria should be made available for guidance to this Committee when considering the Microbiological Specifications for Shrimps and Prawns.

Codex Committee on Food Additives (ALINORM 79/12)

24. The additional food additives in the Standard for Canned Mackerel and Jack Mackerel proposed by the Committee had been endorsed without amendment and note had been taken that a list of specified modified starches for use in the packing media of the products would be drawn up.

25. It was agreed to amend the provision for pectins in the Standard for Canned Sardine and Sardine Type Products so that both natural pectins and amidated pectins would be provided for in the standard.

DRAFT STANDARD FOR CANNED MACKEREL AND JACK MACKEREL AT STEP 6

Product Definition (2.1)

26. The Committee discussed as a matter of principle its decision contained in paras 70 and 71 of a previous report (ALINORM 78/18) concerning the amendment of Step 9 standards to include additional species, resulting in final products of a similar type to those covered by the standard. As had been requested by the Committee, the delegations of India and Thailand provided samples of the finished products prepared from the above-mentioned species. The Committee, having examined the samples in the light of the foregoing discussion, the explanation given by the delegations of Thailand and India, and the comments of the USA, agreed to recommend to the Commission that the Standard for Canned Sardines and Sardine Type Products be amended to include the following species without having to follow the Step 9 amendment procedure: Sardinella fimbriata, Sardinella sirm, Sardinella longiceps, Sardinella gibbosa, Engraulis mordax. Similarly the Committee agreed to include the genus Rastrelliger in the Standard for Canned Mackerel and Jack Mackerel under the heading Scombridae.

27. In connection with the amendment procedures the Committee agreed to request the Commission to concur with the proposal that it should adopt amendment of this type which had been recommended by the Committee without recourse to the full amendment procedures of the Commission. It was emphasized that amendments of this type would arise from time to time as new species were exploited and final products of sardine type or mackerel type or others were made with these species.

28. A possible means of facilitating such procedure would be to have an open-ended listing of the species covered by Group Standards to which new species could be added when recommended by the Committee and approved by the Commission. The Committee set up a small working group to examine further these proposals for the amendment of Step 9 standards and to suggest appropriate procedures for consideration by the Committee and submission to the Commission (see para 111).

29. The Committee examined the above draft Standard as contained in ALINORM 78/18A in the light of Government comments (CX/FFP 79/5 and CX/FFP 79/5, Add.1).

Bits (2.2.1.7)

30. The Committee redrafted this section to read as follows" Pieces irregular bite-sized portions (bits)".

Form of packing media (2.2.2)

31. The delegation of Japan expressed the view that the trade practice, particularly regarding the labelling of certain products, was to use the terminology "natural juice" rather than the expression "own juice". The Committee noted that the practice varied from country to country according to the terminology recognized by consumers and further noted that the expression "own juice" was translated in French as "au naturel" and in Spanish as "al natural".

32. It was agreed to leave the English text unchanged but in order to meet the Japanese point the Committee agreed to introduce a new sub-section 7.1.6 which reads "The term "natural juice" can be used as an alternative to "own juice" provided it does not mislead the consumer in the country in which the product is distributed."

Other presentations (2.2.3)

33. The Committee noted that discussions in other Committees had drawn attention to the wording of this section in standards. It was noted that at some future date this question might be examined by the Commission.

Packing Media (3.2)

34. The Committee noted that the applicable WHO International Standard for Drinking Water would always be the latest edition and modified the footnote to this effect.

Optional Ingredients (3.3.3)

35. The Committee decided to clarify the meaning of the first sentence of the sub-section and agreed that it should read as follows "Spices, herbs, vegetable seasoning, vinegar and wine, and for decorative and flavouring purposes only, vegetables, fruits and other foods".

Drained or Washed Weight (3.5.1)

36. The Committee examined proposals contained in the written comments to amend the various minima for standard of fish fill for the three categories of products. The discussion revolved around how to deal with food products packed in brine or marinated as well as the question of fat and oil content. After examining several proposals, it was agreed to establish the minima as follows:

"3.5.1 Drained or Washed Drained Weight

The drained weight of fish (liquid pack) or the washed drained weight of fish (sauce packs) shall be not less than the following % (m/m) of water capacity of the can when packed in:

- | | |
|---|-----|
| - edible oil | 70% |
| - own juice; brine or water;
marinade; aspic | 60% |
| - sauces, also with other packing media added | 50% |

37. As a consequence of these changes, the Committee agreed to delete sub-section 2.2.2.3, "own juice or brine or water with edible oil added" and to delete "own juice or brine or water with edible oil added; edible oil with own juice" in 3.5.1.

Texture (3.5.4)

38. The Committee agreed to clarify the text by amending it to the following "The texture shall not be crumbly, shall be reasonably free from mushiness and shall otherwise be characteristic of the species".

Food Additives (4)

39. The Committee agreed to change the maximum level for emulsifiers and stabilizers to refer to the maximum levels in the packing medium rather than the final product. It was agreed to add Tragacanth gum with a maximum limit of 20 g/kg and to establish the same maximum level for Xanthan gum. Concerning the chemically-modified starches the Committee removed the square brackets from the section and noted that in the final standard only those modified starches which had been endorsed by the Codex Committee on Food Additives would remain in the standard.

Smoke Flavours

40. The Committee noted that the question of the use of smoke flavours was under review in some countries. It decided to make no changes until the results of current investigation were available for consideration.

Contaminants

41. The Committee briefly considered whether maximum limits for tin and lead should be included in the standard. Several delegations advised that analytical data in their countries indicated that, unlike high acid products packed in metal containers, the level of tin to be found in the final product was very much lower than any of the limits prescribed in Codex Standards. Similarly the lead levels were very low, even for products packed in soldered containers. The Committee therefore concluded that there was no need to introduce a section on food contaminants in the standard.

Net Contents (7.4.2)

42. The Committee considered whether there was any need to require in the case of Mackerel or Jack Mackerel packed in brine or water a drained weight declaration of fish. In the light of discussions and the changes made to section 3.5.1, it was agreed that the requirement for minimum fill of fish was sufficient to safeguard consumer interests and it was agreed to delete sub-sections 7.4.2 and 7.4.3.

Date Marking

43. As requested by the Codex Committee on Food Labelling the Committee considered the appropriateness of including a provision to require the date of minimum durability. The Committee concluded that the products covered by the Standard were of longshelf life due to the processing and packaging. It was therefore concluded that for this type of fish product it would be of no advantage to the consumer to require date marking either from the point of view of protection of the health of the consumer or for reasons of quality.

Determination of drained weight and washed drained weight of Mackerel and Jack Mackerel in relation to water capacity of containers (8.4)

44. It was noted that the determination of water capacity would apply to rigid containers only. The Committee agreed to adopt the wording for 8.4.2 and 8.4.3 proposed by the Delegation of the Federal Republic of Germany which now reads as follows:

"8.4.2 Procedure for packs in own Juice, Brine, Water or Oil (drained weight)

- (i) Weigh the unopened containers that have been kept at a temperature of not less than 20°C (68°F) or more than 24°C (75°F) for a minimum of 12 hours prior to examination.
- (ii) After opening, tilt the containers so as to distribute the contents over the meshes of the tared (pre-weight) circular sieve. Incline the sieve at an angle of approximately 17° - 20° and allow the mackerel or jack mackerel to drain two minutes, measured from the time the product is poured into the sieve.
- (iii) Remove adhering liquids from bottom of the sieve by use of a paper towel. Weigh the sieve containing the drained mackerel or jack mackerel.

8.4.3 Procedure for packs in Sauces, also with optional ingredients (washed drained weight)

- (i) See 8.4.2.
- (ii) After opening, tilt the container and wash first the covering sauce and then the full contents with hot tap water (approx. 40°C (104°F)), using a wash bottle (e.g. plastic) on the tared circular sieve.
- (iii) Wash the contents of the sieve with hot water until free of adhering sauce; where necessary separate optional ingredients (spices, vegetables, fruits) with pincers. Incline the sieve at an angle of approximately 17° - 20° and allow the mackerel or jack mackerel to drain two minutes, measured from the time the washing procedure has finished.
- (iv) Remove adhering water from the bottom of the sieve by use of a paper towel. Weigh the sieve containing the washed drained mackerel or jack mackerel."

Defects Tables

45. The Committee examined the two defects tables and revised these in the light of comments made by delegations. (Secretariat Note: The revised tables will be issued separately from this Report.)

Lot Acceptance (10)

46. In the light of the changes made to the defects tables the Committee agreed to adopt the provision covering lot acceptance which now reads as follows: "A lot will be considered as meeting the final product and weight requirements of this standard when the total number of "defectives" as classified according to Annex A does not exceed the acceptance number (c) of the appropriate sampling plan in the Sampling Plans for Prepackaged Foods (AQL-6.5)(CAC/RM 42-1969), when the average drained weight or average washed drained weight of all containers examined is not less than the appropriate value specified in 3.5.1 and when the average net contents of all containers examined is not less than the declared weight provided that there are no unreasonable shortages in individual containers".

Status of the Standard

47. The Committee advanced the Standard to Step 8 of the Procedure for the elaboration of Standards. (Secretariat Note: The amended text of the Standard will be issued separately from this Report.)

PROPOSED REVISION OF THE STANDARD FOR CANNED PACIFIC SALMON

48. The Committee had before it Appendix VIII of ALINORM 78/18A which contained the revised standard proposed at the request of the Committee by the USA and Canada.

49. Before proceeding to detailed examination of the Standard the Committee agreed that the revised text should be brought into conformity with the format adopted by the Committee for other canned fish products, in particular the Standard for Canned Mackerel and Jack Mackerel.

50. The Committee further agreed that, as far as possible, provisions which were common to a number of standards should be employed wherever appropriate in the Standard for Canned Pacific Salmon.

51. The delegations of Canada and the USA undertook to take account of the general observations during the course of the meeting and to provide the Secretariat with a revised text.

Scope

52. The Committee decided to terminate the Scope section after the words "... part of the edible content" as the rest of the section was more appropriately covered in the labelling section of the Standard.

53. It was further agreed that the reference to 'natural juice' should be changed to 'own juice' and mention made in square brackets of salmon oil which may be added in small quantities to small containers.

54. The adopted Scope section reads as follows: "This Standard applies to Canned Pacific Salmon in its own juice including salmon oil; it does not apply to speciality products where salmon constitutes only a portion of the edible contents". As a consequence subsection 3.2.2 'oil' was placed in square brackets.

Processing (3.3)

55. As a consequence of the amendment made to the Scope section it was agreed to modify the first sentence of the section to read "... viscera, including eggs, milt and blood; ..."

Appearance (3.4.1)

56. The Committee revised 3.4.1:

(i) "The can shall be well filled with fish".

57. The Committee agreed to replace the subsection with the following text:

(ii) The product in a can shall comprise fish of an appearance and colour characteristic of the species processed and packed in the manner indicated (2.2.2).

58. The delegation of Japan drew attention to water marking or nuptial colour which, in its opinion, should be regarded as a defect. The delegations of Canada and the USA stated that river-caught salmon at spawning time would inevitably be water-marked but this would not necessarily affect the acceptability of the canned product.

Odour and Flavour (3.4.2)

59. The Committee agreed to incorporate the following text proposed by the UK:

"The product shall have an odour and flavour characteristic of the species and be free from objectionable odours and flavours of any kind."

Bones (3.4.4)

60. The Committee adopted the alternative text proposed by the Secretariat: "Bones when present shall be soft (see also 2.2.2.2)".

Hygiene (4.3)

61. The Committee agreed that this subsection should now read: "Products with an equilibrium pH above 4.6 shall have received a processing treatment sufficient to destroy all spores of Clostridium botulinum."

Labelling (5)

62. The words "subject to endorsement by the Codex Committee on Food Labelling" were added to the end of the paragraph.

Lot Identification (5.6)

63. To be consistent with the wording endorsed by the Codex Committee on Food Labelling for other standards the paragraph was amended to read "Each container shall be embossed or otherwise permanently marked, in code or in clear, to identify the producing factory and the lot".

Vacuum Tests (6.2)

64. The Committee decided that it was no longer necessary to maintain this provision in the Standard as it was covered by both the Codex Code of Practice for Low-acid Canned Foods and that for Canned Fish.

Defects Table

65. The Committee agreed that a table of defects similar to those provided in the Standards for other canned fish should be developed. The delegation of Japan undertook to provide the defects table used in Japan which would be forwarded within the next two months to the Secretariat in Rome for circulation with the Standard to Member Governments.

Status of the Standard

66. The Committee decided to advance the Draft Standard to Step 5 of the Procedure. (Secretariat Note: The draft Standard will be issued separately from this Report.)

DRAFT STANDARD FOR QUICK FROZEN FISH FINGERS (FISH STICKS) AND FISH PORTIONS
BREADED OR IN BATTER

67. The Committee had before it the revised Draft Standard at Step 3 which had been prepared by the Working Group which met in Portsmouth, New Hampshire, USA, from 25-27 September 1978. The Report of the Working Group was introduced by the delegation of the USA who had chaired the meeting.

68. The Committee agreed that before proceeding to detailed examination of the Standard they should first consider document CX/FFP 79/10 which had been prepared by the delegation of the UK as a result of discussion and the meeting of the Working Group.

69. The delegation of the UK emphasized that the definition of "bones" proposed in the document could apply to defect tables in all quick frozen fish standards and that the definition took into account both consumer and producer experience. The definitions suggested in the document presented two alternatives.

70. The Committee decided to adopt the second formulation of the definitions which would now read as follows:

- (a) "Any bone whose maximum profile can be fitted within a rectangle measuring $\sqrt{10 \times 3}$ mm would not be regarded as a bone for the purpose of being classified as a defect.
- (b) Any bone whose maximum profile lies outside a rectangle measuring $\sqrt{40 \times 10}$ mm would be regarded as a "critical bone".
- (c) Any bone whose maximum profile cannot be fitted within a rectangle measuring $\sqrt{10 \times 3}$ mm, but which can be fitted into a rectangle measuring $\sqrt{40 \times 10}$ mm should rate as a bone defect."

71. The Committee noted that no reference was made in the table to hazardous bones. The delegation of the USA pointed out that hard rigid bones are not the only source of danger to the consumer - flat flexible bones were also a possible hazard. Experimental evidence gained over the past four years showed that the evaluation of bones by non-destructive methods, X-ray and other para-medical techniques had not yet demonstrated that an effective detection procedure could be established.

72. After some discussion the Committee agreed to maintain the text as given above.

73. The Committee then considered the Standard proper.

Scope

74. After some discussion on the origin and type of fish used for these products the Committee decided to widen the Scope section to all fish species by removing the reference to teleost species. The scope now reads: "This standard applies to quick frozen fish sticks (fish fingers) and fish portions formed from fish flesh with breaded or batter coatings singly or in combination, raw or partially cooked, and offered for consumption without further processing".

Product Definition (2.1)

75. In section 2.1.1 the Committee agreed to change the range of weight limits for fish sticks to "not less than 20 g and not more than 50 g". Section 2.1.2 was also amended to read "not less than 50 g".

Minimum Requirements for Proportions of Fish Flesh (2.2)

76. The Committee agreed to place the entire sub-section in square brackets and to transfer it to an appropriate place under "Essential Composition and Quality Factors".

Process Definition (2.3)

77. The Committee agreed to revise the last sentence of the sub-section to refer to further processing of intermediate quick frozen products. This now reads ("The recognized practice of further processing of intermediate quick frozen material under controlled conditions followed by the re-application of the quick-freezing process is permitted").

Essential Composition and Quality Factors (3)

78. The Committee made the following amendments for the section:

Fish (3.1.1) Delete reference to "teleost".

Coating (3.1.2) "The coating used shall be prepared from materials fit for human consumption".

Final Product (3.2)

3.2.1 Add sub-section (g) to read as follows "reasonably free from excess fat".

3.2.4 Text to read as follows: "The product must be free from all objectionable odour, flavour and texture. If the product is presented under a species name, the odour, flavour and texture and the colour of the flesh must be characteristic of the species or mixture of species used."

Food Additives (4)

79. The Committee noted that the list of food additives had been considerably extended by the Working Group, in particular those additives used in the coating portion of the product.

80. The Committee agreed to add pectins to the list in the light of technological justification provided by the representative of IPPA, at a level of 10 g/kg of the final product.

81. The Committee agreed to introduce a new section "Flavour enhancers" and to make a provision for the use of Monosodium Glutamate (MSG) to be limited by G.M.P.

82. The Committee further noted that the modified starches would have to be specified before the Food Additive Section could be considered by the Codex Committee on Food Additives. The Committee agreed to include the same modified starches as those in the Food Additives Section of the Standard for Jack Mackerel and to place the whole section 4 within square brackets.

Labelling (6)

83. The Committee made the following changes:

6.1 Name of the Food

6.1.2 "The label may in addition include reference to the species or mixture of species."

6.1.5 "The label may show whether the products are prepared from minced fish flesh, fish fillets or a mixture of both."

6.1.6 To be placed in square brackets.

Organoleptic Examination (7.2)

84. The Committee agreed to replace the last sentence with the following: "The frozen sample shall be cooked prior to organoleptic assessment according to the cooking instructions on the package. Where no such instructions are given, the frozen sample shall be cooked according to a method set out in Annex A".

Annex A. Preparation of Sample for Organoleptic Examination

85. It was agreed that this annex should be metricated and edited by the Secretariat.

Classification of Defectives (8)

Annex B. Defects Table for Quick Frozen Breaded Fish Fingers (Fish Sticks) and Breaded Fish Portions

86. Section B Fish Content. Delete sub-section 2 concerning fin-bones and amend section 6 to make reference to "parasitic infestation" which is objectionable.

87. The delegation of the USA drew the Committee's attention to the need to make provision for a section on objectionable flavours and odours and to the necessity to make a general revision of the Table and to provide a table of maximum allowable tolerances for defects. It was agreed that the Delegation of the USA and the Federal Republic of Germany should collaborate in this revision and that the revised document would be forwarded to the Secretariat in Rome to be included as an appendix to the present report. (Secretariat Note: The revised document will be issued separately from this Report.)

Lot Acceptance (9)

88. The text of Lot Acceptance was changed to the following: "A lot will be considered as meeting the end product requirements when the number of "defectives" classified in accordance with Section 8 does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Sampling Plans for Prepackaged Foods (CAC/RM 42-1969) and when the average net contents of all containers examined is not less than the declared weight provided there is no unreasonable shortage in individual containers.

Status of the Standard

89. The Committee decided to retain the Proposed Draft Standard at Step 3 of the Procedure. (Secretariat Note: The Proposed Draft Standard will be issued separately from this Report.)

PROPOSED DRAFT STANDARD FOR QUICK FROZEN BLOCKS OF FISH FILLETS AND MINCED FISH FLESH AND MIXTURES OF FILLETS AND MINCED FISH FLESH

90. The Committee had available for consideration the above draft Standard (ALINORM 78/18A, Appendix V) and Government comments contained in CX/FFP 79/7 and CX/FFP 79/7, Add. 1.

General

91. Several delegations reminded the Committee of previous discussions concerning the need to develop a standard for fish blocks, as in their opinion these were primarily products intended for further processing. Other delegations recalled that

the Committee had decided to elaborate a standard for fish blocks because of the importance of international trade in these products and because in some instances the product went directly to the consumer after cutting and packaging.

92. A number of delegations expressed the view that the term "minced fish" did not describe the true nature of the product which was in fact mechanically separated fish flesh. It was agreed therefore to add the word minced (separated) fish flesh in the title of the Standard.

Scope and Product Definition

93. The delegation of Spain expressed the view that mixtures of fillets and minced fish should be derived from the same species. Other delegations thought that this would be too restrictive and that a mixture of species of similar organoleptic characteristics should be permitted.

94. The Committee decided to amend section 2.1(a)(ii) to read "a mixture of species" and to delete reference to organoleptic characteristics.

Storage Instructions (2.3)

95. The Committee amended the section to read as follows: "the outer containers shall bear clear directions for storage". This section would be transferred to the labelling section of the Standard.

Presentation (2.4)

96. In the light of the discussion on the Scope and Product Definition section the Committee consequentially amended this section to read as follows: "The products shall be presented in fish blocks comprising

- (1) Fillets and fillet pieces (i) skin-on
(ii) skinless including deepskinned fillets
(iii) skinless and boneless
- (2) Fillets/fillet pieces and minced fish
- (3) Minced fish.

Other Presentations (2.5)

97. This section was deleted.

Food Additives (4)

98. The Committee examined the additives and limits imposed in this section and compared them to the limits in the Standard for Fish Sticks with coating. The relationship between the limits was found to be roughly consistent. It was agreed, however, that the section dealing with food additives for minced fish should be entitled "In addition, for minced fish only" and that consideration should be given to whether the blocks were for further processing or for direct sale to the consumer. The Secretariat was requested to bring the format of the Food Additives section into conformity with that used in the Standard for Quick Frozen Fillets of Hake.

99. 6.1.5 deleted consequential to deletion of 2.3.2 (2.5).

Methods of Sampling and Analysis

Physical Defects (7.2.4)

100. The Committee agreed that this section should be revised by the Secretariat in accordance with the written proposals of Canada contained in document CX/FFP 79/7 Add.1. This reads as follows:

"Physical defects (thawed state) - A sample unit weighing 1 kg (or 2 lbs) shall be removed from each sample block. For minced blocks, the sample unit shall be removed by taking at least four core samples from different locations of the block to make up

the 1 kg sample. The sample unit shall be thawed by enclosing it in a film-type bag and immersing in an agitating water bath held at maximum of 21°C (70°F). The complete thawing of the product is determined by gently squeezing the bag until no hardcore or ice crystals are felt, taking care not to damage the texture of the fish. The thawed sample unit should be examined for compliance with Section 3.3.2 (see Annexes B, C and D). Minced flesh shall be spread evenly on a level tray to a depth of 1 cm and the visible defects counted on the surface without disturbing the individual pieces of flesh."

101. 7.2.6. The Committee agreed that this section would need to be reconsidered at a future session of the Committee when more experimental evidence of the determination of the proportions of minced/fillet flesh was available.

Annex B

Bones

102. Delete second sentence, and use the definition for bones as agreed for fish fingers. Attention was drawn to the need for comment on the possible inclusion of a defect under the heading of Gritty Taste or Texture (ref. CX/FFP 79/10, para 12).

Fins or Part Fins

103. It was agreed to amend as follows: "Any fin or part fin (two or more rays connected by membrane)".

Annex C

2. Block Irregularity

104. It was agreed to remove the square brackets and to refer to "minimum" number of units affected.

105. The Committee noted that the defect tables should be harmonized with the Fillet Standards not only for bones, but for other common defect provisions.

Section 10 - Parasites

106. The Committee agreed to change the classification from 2 "serious" to 2 "major".

Foreign Matter

107. It was further agreed to add Section 12 "Packaging material" classified as 2 "serious".

Annex D

108. The Committee amended section 2, Block Irregularity, in line with the changes made in Annex D and similarly added section 8, Packaging material with 2 "serious" points. It was pointed out that consideration should be given to measurement of bones in these products.

Maximum Allowable Tolerance for Defects

109. The following table was agreed by the Committee:

Points Classification	Blocks made from Fillets, Fillet Pieces and Minced Fish	Blocks made from Minced Fish	Blocks made from Fillets and Fillet Pieces
Serious	4	4	4
Serious + Major	10	10	10
Serious + Major + Minor	14	14	12

Status of the Standard

110. The Committee agreed to retain the Draft Standard at Step 3 of the Procedure. (Secretariat Note: The Draft Standard will be issued separately from this Report.)

Additional Proposed Procedure for the Incorporation of additional Species into Step 9 Standards

111. The Committee set up a Working Group comprising representatives of Australia, France, Nigeria, Norway, Peru, Thailand and the USA. The Committee examined the proposals of the Working Group and agreed to recommend to the Commission that these procedures be initiated in respect of Step 9 Standards for fish products. The proposed procedures are as follows:

"As the Codex Alimentarius Commission recognized the usefulness of elaborating international product standards as a means of promoting trade of food products which have international market potential, the Committee proposes the following procedure for accelerating the amendment of Step 9 Standards for fish and fishery products to allow for the incorporation of new fish species.

A country wishing to propose the incorporation of a new species into a standard at Step 9 will, when submitting the proposal, provide the Committee on Fish and Fishery Products with:

- (1) An attestation from appropriate recognized institutions regarding the scientific name, and other relevant taxonomic information for the species in question.
- (2) Data on existing and potential resources, and on products derived therefrom.
- (3) Form to be marketed, and proposed processing technology for each form of presentation, including samples.
- (4) Reports from at least 3 laboratories from those to be nominated by the Committee, stating that the organoleptic properties of the new species after processing conform with those of the processed species currently included in the pertinent standard.

To develop such a procedure, the Committee should appoint a Working Group on this subject, which shall formulate criteria and parameters, as well as scoring systems, to be used by the laboratories nominated by the Committee in the evaluation of new species and products derived therefrom. The nominated laboratories shall reflect as far as possible the different world regional criteria for acceptance and the interests involved. A prerequisite for the application of the proposed procedure shall be the prior approval of the above mentioned criteria by the Committee.

The Committee, after having agreed to the incorporation of the species in question into the standard, would submit its proposal to the Commission for immediate endorsement and incorporation into the Step 9 standard. This is in effect a submission of the amendment at Step 5 of the procedure for amending Step 9 standards, with the proposal to omit Steps 6, 7 and 8.

It is noted that although this procedure would be mandatory only in the case of a Step 9 amendment, it could be usefully used by countries to facilitate the incorporation of new species into draft standards in the process of elaboration."

CONSIDERATION OF DRAFT CODES OF PRACTICE

112. As requested by the Committee an ad hoc Working Group comprising members at various times during the discussions of the delegations of Brazil, Canada, Denmark, Finland, Federal Republic of Germany, Iceland, Ireland, Netherlands, New Zealand, Norway, South Africa, United Kingdom and the USA with representatives of FAO and WHO under the chairmanship of Dr. J.J. Doesburg (Netherlands) with Mr. C. McGrath (Ireland) as Rapporteur, reviewed the various Draft Codes of Practice in the light of Government comments and further comments made by those present at the meeting.

DRAFT CODE OF PRACTICE FOR MINCED FISH AT STEP 3

113. The amendments proposed in CX/FFP 79/16 (Government Comments) and those arising from discussion were in general accepted and incorporated in the revised text of the Code. There were a number of exceptions where what was proposed was considered to be already provided for in the text or where it was the view of the Group that the need for the changes requested did not now exist.

114. It was agreed to recommend to the Committee that it accept the proposal of the New Zealand representative to dispense with cross-references to other Codes of Practice in each Code and to make each Code complete in itself by incorporating in it where necessary relevant items from other Codes.

115. It was the view of the Group that the proposal of Poland to apply the Code of Practice only to the production of frozen, minced raw fish should be deferred pending further information on the necessity for such a requirement.

116. The Group was informed by the representative of the Federal Republic of Germany that in connection with meat and meat products critical experiments had been carried out by the Federal Health Office on the relative effectiveness of water heated to 65°C and that heated to 82°C for normal cleaning and disinfection purposes. It had been established that:

- (1) At 82°C protein coagulated at the surface of the equipment being cleaned and this made it difficult to remove: this did not occur to the same extent at 65°C with the result that protein coagulates could be removed more easily; and
- (2) microorganisms might be enclosed in these protein coagulates and so be protected from destruction by the temperature of the water and by the disinfectants it might contain; and
- (3) vegetative forms of microorganisms of concern under normal conditions of production were eliminated to an extent which was satisfactory hygienically by water at 65°C: the results obtained with water at 82°C did not give better results for this purpose; and
- (4) fat, if present, could be removed as easily by water at 65°C as by water at 82°C. The Group accordingly recommended to the Committee that it approve a proposal to reduce the temperature requirement of water employed for normal disinfection and cleaning purposes as specified in 4.1.3.4 from 82°C to 65°C and that all other Codes of Practice be likewise amended. In the case of the Smoked Fish Code of Practice an additional paragraph should be added to 4.3.3 "special precautions must be taken to avoid the conditions which will favour the outgrowth of Clostridium botulinum".

117. The Group noted the need for editorial changes in the general text of the Code and it recommended that Member Governments be asked to comment on these as well as on any substantive changes they deemed necessary.

118. It was the recommendation of the Group that the Code as now revised should be submitted to the next meeting of the Food Hygiene Committee for approval of the hygiene provisions and that if that Committee recommended no changes of substance in the text the Code should then be submitted to the Commission at Step 5 of the Procedure.

(Secretariat Note: The Draft Code of Practice will be issued separately from this Report.)

DRAFT CODE OF PRACTICE FOR LOBSTER AT STEP 7

119. The ad hoc Working Group revised the Draft Code of Practice for Lobster (ALINORM 78/18A - Appendix, Lim. 5) in the light of Government comments (CX/FFP 79/11) and in the light of substantive changes to the proposed Draft Code of Practice for Lobsters (CX/FFP 77/6B) proposed by the Food Hygiene Committee and comments made by the representatives of Governments present at the meeting, and revised the text accordingly.

120. The Group considered the need for microbiological end-product specifications for this Code having regard to the suggested criteria covering this matter proposed by the Third Joint FAO/WHO Expert Consultation on Microbiological Criteria for Foods held in Geneva from 20 - 26 February 1979 and came to the conclusion that the evidence documented to date did not justify the establishment of Microbiological Specifications for Cooked Lobsters and Lobster Products at this time. The Group recommended to the Committee that the Code as revised be forwarded to the Food Hygiene Committee for approval of the hygiene provisions and in the event of non-substantive changes being recommended by this Committee that the Draft Code be advanced to Step 8 of the Procedure and submitted to the Commission. (Secretariat Note: The Draft Code will be issued separately from this Report.)

DRAFT CODE OF PRACTICE FOR SMOKED FISH AT STEP 7

121. The ad hoc Working Group reviewed the Draft Code of Practice for Smoked Fish (CX/FFP 77/6) in the light of Government comments (CX/FFP 79/8 and CX/FFP 79/12), the list of substantive changes to the proposed Draft Code of Practice for Smoked Fish (CX/FFP 77/6 A(A)) recommended by the Food Hygiene Committee, and comments made by representatives of member countries present at the meeting.

122. The proposal of the Netherlands that all codes be harmonized was supported as was also the proposal that a definition of "Food Additives" be included in all codes as defined in the Codex Alimentarius Commission Procedural Manual 4th Edition.

123. It was the recommendation of the Group that the text of the code as revised be submitted to the Food Hygiene Committee for approval of the hygiene provisions and if the Committee recommended no substantive changes in the text, that the Draft Code be advanced to Step 8 of the Procedure and submitted to the Commission. (Secretariat Note: The Draft Code will be issued separately from this Report.)

PROPOSED CODE OF PRACTICE FOR SALTED FISH AT STEP 7

124. The Code was revised in the light of Government comments (CX/FFP 79/14) and the list of substantive changes proposed by the Food Hygiene Committee (CX/FFP 77/6(C)) and those proposed by members of the Working Group. It was agreed to submit the new text to the Food Hygiene Committee and if no changes of substance were proposed by that Committee to submit the Draft Code to the Commission at Step 8 of the Procedure. (Secretariat Note: The Draft Code will be issued separately from this Report.)

125. The Committee expressed its concern over the definition of food grade salt and thought that a specific description for salt may need elaboration for the purposes of the code at a later date if the description of salt presently under elaboration by the Food Additives Committee did not meet the needs of the salt fish industry.

126. There was a very full discussion of "Objective Methods to Measure and Determine Final Product Quality during Prolonged Storage of Salted Fish" (CX/FFP 79/13) prepared by Finland. It was suggested that the title be changed to "Objective Methods of Determining the Final Quality of Salted Herring during Prolonged Storage". The document submitted by Finland with a revised foreword will be circulated for further comments by governments. Especially the following data to be requested: is there a need to develop methods to monitor dry-salted products and which other methods are suggested to be used to monitor and determine the quality of salted fish? It was the view of the Group that this project which had been undertaken by Finland was very well worthwhile and that the possibility of its being extended to cover other species and methods deserved serious consideration and that the views of Governments should be sought as to the species and methods that should be included.

MICROBIOLOGICAL SPECIFICATIONS FOR SHRIMPS AND PRAWNS

127. The ad hoc Working Group considered in detail the Microbiological Specifications for Cooked Shrimps, Prawns Peeled and Ready to Eat, which are to be appended to the Recommended International Code of Practice for Shrimps and Prawns in the light of comments received. The Committee agreed on the need to establish microbiological criteria for end product specifications to be applied at importation as well as for guidelines which are to be applied at the manufacturing level as described in the Report of the FAO/WHO Working Group on Microbiological Criteria for Foods, Geneva, 20-26 February 1979. It was the opinion of the Group that when the Microbiological End Product Specifications were established there should also be established a microbiological guideline to be applied in establishments to assure compliance with Microbiological End Product Specifications at the time of import. Unfortunately, although numerous data existed relative to hygienic operation of in-plant processes and import, little had been gathered in accordance with the sampling plans and methodologies referenced in the Report of the 2nd Joint FAO/WHO Expert Consultation on Microbiological Specifications for Foods held in Geneva in 1977 (EC/Microbiol/77/Report 2).

128. The Group thought it **necessary** to have available such data both at the production level and at the point of import so that valid comparisons could be made and objective decisions reached. The Group therefore recommended that the Appendix be retained at Step 6 of the Procedure and that Governments be requested to procure such data making use of the sampling plans and methodologies as contained or referenced in the above document. The reference to all sampling plans and methodologies would be attached by the Secretariat to the circular letter seeking Government comments which must be sent to member countries as soon as possible after the conclusion of this meeting. The data would be used as the basis of an appropriate recommendation to be made to the Food Hygiene Committee with the appropriate Microbiological End Product Specifications and the Guidelines to be established for this commodity. It was stressed that for Guideline purposes it was necessary that all microbiological and sampling methods **be done in plants** which complied with the hygiene provisions of the Codex Code of Practice for Shrimp or Prawns. All data was to be sent to the Codex Secretariat six months in advance of the next meeting of the Codex Committee on Fish and Fishery Products. Immediately prior to the next meeting of the Committee a small working group to be nominated by the Chairman should be convened to examine data received and to make appropriate recommendations to the Codex Committee on Fish and Fishery Products.

129. The reports and recommendations of the ad hoc Working Group on the various codes of practice and on the Microbiological Specifications for Shrimps and Prawns were approved by the Committee.

PROPOSED DRAFT CODE OF PRACTICE FOR FROZEN BATTERED AND/OR BREADED FISHERY PRODUCTS

130. The Committee noted that the Working Group which had met in Portsmouth, New Hampshire in September 1978 to revise the Draft Standard for Quick Frozen Fish Fingers (Fish Sticks) and Fish Portions, Breaded or in Batter, had also established a sub-group to review the above Code.

Status of the Code

131. The Committee made no further changes to the Code as reviewed by the Portsmouth Working Group and agreed to advance the Draft Code to Step 3 of the Procedure.

(Secretariat Note: The Draft Code will be issued separately from this Report.)

Other Business

132. The Committee enquired when the Codes of Practice for Frozen Fish and for Shrimp or Prawns would be available to Governments. The Committee had advised that it should be possible to issue these Codes by July.

Acceptances

133. The Committee briefly discussed the present status of acceptances of the Standards. Some delegations thought that the earlier standards elaborated by the Committee might require review in the light of technological innovations, in particular the assessment of defects. Here, as an example, reference was made to the new definitions for bone defects adopted in the Draft Standards for Fish Blocks and Fish Fingers and the consequence for acceptance that this would have for the Standard for the Quick Frozen Fish Fillets now at Step 9. In the opinion of some delegations defects should be reconsidered. The delegation of Norway undertook to report back to the Committee at its next session on the need to revise the Standards for Quick Frozen Fillets of Cod and Haddock (CAC/RS 50-1971) and Quick Frozen Fillets of Ocean Perch (CAC/RS 51-1971), especially with regard to definitions and assessment of defects. It further stated that it was the intention to consider all Quick Frozen Fillet Standards which were now at Step 8, particularly with a view to revising the defects tables.

134. The delegation of the USA considered that it would be important for the Committee to update and harmonize defect tables in the fish standards as this would enable a systematic approach to be followed by the Committee to take into account changes in technology which would not necessarily require changes to be made to the basic provisions of the standard but would call for some modification of the classification of defects and tolerances.

135. A number of delegations pointed out the value which the existing Standards and Codes of Practice had been to the Fishery Inspection and Control Services of developed and developing countries in improving product quality and, in particular, to the establishment of new fishing industries in developing countries. Other delegates stressed the increasing value of the Committee in providing a forum for reaching common views on standardization.

136. The Committee was advised by the Secretariat that the pace of Government acceptance was increasing: for example, Canada, the USA and Argentina had given the greatest number of acceptances to Codex Standards. The EEC on behalf of its member states had given acceptance to a number of Codex Standards for Sugars and it appeared that these could be the first of an increasing number to be accepted by the Community. Many developing countries had given acceptance to Codex Standards which were of importance to either their export or import trade. Other countries had indicated to the Commission that they had embarked upon the process of incorporation of Codex into regulations either by amendment of existing statutory requirements or by creating new regulations. FAO had been assisting developing countries to establish food control infrastructures in order to implement Codex Standards and Codes of Practice.

Future Work

137. The delegation of Spain drew to the attention of the Committee that the lack of Spanish translation was a serious handicap to Spanish-speaking delegations attending the Committee. The Chairman undertook to raise the matter in discussion with the Norwegian authorities.

138. The delegation of Brazil emphasized the importance to producing and importing countries of the standardization of salted and dried cod. The delegation of Peru, in support of the delegation of Brazil, stated that any standards for this product should extend to the whole of the family Gadidae. Other delegations from importing countries supported these views.

139. The Chairman reminded the Committee that work had been commenced during the early sessions of the Committee on a Draft Standard for Green Salted Cod. The delegation of Norway undertook to prepare a working paper and a draft of a standard based on this work for consideration at the next session of the Committee.

140. The delegation of Brazil also drew the attention of the Committee to the increasing importance of fillets of and dressed Red Snapper in international trade. The delegation of the USA informed the Committee that there were many related species and that a Standard for Red Snapper alone would be too narrow. The Committee agreed that the views of Governments should be sought on which species in addition to Red Snapper might constitute the basis for a group standard.

141. The delegation of Peru informed the Committee of the increasing international trade in individually and block frozen whole, headless and gutted fish which went direct to the consumer in many countries and proposed to the Committee that a standard for such products should be elaborated.

142. The delegation of Australia emphasized the importance of developing standards which reflected the style and form of presentation of the final product rather than individual species. The Committee agreed that a background document on the feasibility of developing a standard for frozen blocks of whole, headless and gutted fish should be prepared.

143. The delegation of Australia undertook the preparation of such a document. The delegations of New Zealand, Peru, South Africa and USA offered their collaboration. The Committee was informed that a report of a Working Group of the West European Fish Technologists Association on Quality Assessment on a system of grading for this type of product had been published and would be provided to the coordinator of the background document by the delegation of the Netherlands.

DATE AND PLACE OF NEXT MEETING

144. The Committee expressed the view that it would be desirable, because of the importance of the future work programme to developing countries, to meet in 1980.

145. The exact time and place of the meeting would be agreed between the Commission and the Norwegian Government.

ALINORM 79/18

APPENDIX I

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LISTE DES PARTICIPANTS
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