codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

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ALINORM 87/18

PART I

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
Seventeenth Session
Rome, 29 June - 10 July 1987

REPORT OF THE SEVENTEENTH SESSION OF THE CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS
Oslo, Norway, 5-9 May 1986

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INTRODUCTION

1. The Codex Committee on Fish and Fishery Products held its Seventeenth Session in Oslo, Norway, from 5-9 May 1986 by courtesy of the Government of Norway. The Session was chaired by Mr. John Race, of Norway.

2. Mr. Gunnar Gundersen, Permanent Secretary of the Norwegian Ministry of Fisheries, welcomed the participants. He recalled that Norway, which was one of the founder members of the Codex Alimentarius Commission, attached great importance to the work of the Commission and in particular of this Committee.

Mr. Gundersen expressed the opinion that the work of the Commission helped to protect the health of the consumers as well as to facilitate international trade. He drew attention to the benefits which countries could derive from the global evaluation of food additives, pesticides and other artificial aids which were necessary to satisfy the needs of an increasing world population. He also pointed to the work undertaken by the Committee not only on the products already well established in world trade but also on those which had trade potential, especially in developing countries, e.g. aquaculture, squid, and fish protein products.

3. He paid tribute to the immense contribution made to the work of the Committee by Dr. Olaf Braekkan, who had been chairman of the Committee since its first session in 1966. The Committee joined Mr. Gundersen in extending its warm appreciation and best wishes for the future to Dr. Braekkan, who had now relinquished chairmanship of the Committee. At the same time, he wished the new chairman Mr. John Race every success.

4. The Session was attended by Government delegations and observers from the following 31 countries: Argentina, Australia, Belgium, Brazil, Canada, China, Cuba, Denmark, Finland, France, Federal Republic of Germany, Iceland, India, Ireland, Italy, Cote d'Ivoire, Japan, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Tanzania, Thailand, Tunisia, Turkey, United Kingdom and U.S.A. The Committee particularly welcomed the delegations of the People's Republic of China and Cote d'Ivoire who were participating in the work of the Committee for the first time. Observers from the following international organizations were present: AIPCEE, AOAC, EEC and MARINALG. The list of participants, including officers from FAO, is contained in Appendix I of this Report.

ADOPTION OF THE AGENDA

5. The delegation of the Netherlands pointed out that the report of the "Harmonization" Working Group which had met in Bremerhaven the previous week had just been made available and proposed therefore to postpone consideration of items 5, 6 and 7 to allow delegations to study the report.

6. The chairman of the Committee drew attention to the need to establish at least three ad hoc working groups during the Session. This would further lead to re-arrangements of the agenda items.

Working Group on Codes of Practice

7. The Committee noted that the Working Group would have to consider the proposed Draft Code of Practice for Cephalopods (item 10), the feasibility of developing a Code of Practice for Aquaculture and the inclusion of the HACCP concept into Codes of Practice for Fish Products. It also noted that the three items were at different steps of development; the Cephalopods Code being already at Step 4.

8. It was agreed that the decision on the feasibility of a Code for Aquaculture and the HACCP concept had to be taken in plenary.

9. The delegation of the United States informed the Committee that it had reviewed the CCPMPP Code of Hygienic Practice for Processed Meat and Poultry Products and the Draft Code of Hygienic Practice for Pre-cooked Meals in Mass Catering which already included the CCP notes and had developed a brief paper which indicated the provisions in the Code of Practice for Shrimps and Prawns for which CCP notes could be considered. On the basis of this paper it proposed that the Committee could decide whether those CCP notes were appropriate and whether the paper could serve as a model for all the fish codes.

10. It was agreed that the Working Group on Codes of Practice would be chaired by Mr. S. Karnicki of FAO. The delegations of Australia, Canada, Cote d'Ivoire, Cuba, Denmark, Federal Republic of Germany, Netherlands, Thailand and U.S.A. agreed to participate; the report of the Working Group would be discussed under the relevant agenda items.

Working Group on Methods of Analysis and Sampling

11. The Committee noted that the basis for the Working Group was the request of the CCMAS to classify and review the methods of analysis included in the Standards for Fish and Fishery Products (see paras. 40-41, ALINORM 85/18). The terms of reference also included examination of the CCMAS proposal for alternative sampling plans (CX/MAS 86/6 - Revised) for the Draft Standard for Quick Frozen Blocks (Appendix III, ALINORM 85/18). It was agreed that the Working Group would be chaired by the delegation of the United Kingdom and that the following delegations would participate: Canada, Denmark, Federal Republic of Germany, Iceland, Norway, Switzerland and U.S.A.

12. The chairman pointed out that the Working Group should also consider lot acceptance and sampling plans concentrating their attention on the proposed Draft Standard for Quick Frozen Blocks.

Working Group on Food Additives

13. The Committee was informed that CCFA had at its 17th Session considered the food additives provisions for the "Quick Frozen Blocks" Standard and the "Quick Frozen Fish Fingers and Portions" Standards and had requested that they be reviewed and that data on technological justification and level of use be provided. Furthermore, there was a need to reconsider the class name water-binding agents in relation to phosphates which had been referred back to the Committee by CCFA. No replies had been received to CL 1986/18 requesting comments on the above matters. The delegation of the United States agreed to chair the Working Group. The following delegations agreed to participate: Belgium, France, Federal Republic of Germany, Norway, United Kingdom and the observer of MARINALG.

14. The Committee re-arranged the agenda to facilitate discussion of the Working Group Reports, and adopted the agenda as amended.

APPOINTMENT OF RAPPORTEURS

15. The Committee did not appoint official rapporteurs in line with common practice in other Codex Committees.

MATTERS OF INTEREST - STATEMENT OF WHO ACTIVITIES

16. WHO Publication on Food Irradiation

Given that food irradiation technology could be utilized to increase food safety and to reduce food losses and given that there was still a tremendous lack of knowledge about this technology, WHO had decided to produce an information book on food irradiation. FAO had accepted the invitation to cosponsor this publication. The target groups for which this book was being written included public health and other governmental officials, management of food industries and consumer associations. An Editorial Board had been established to guide FAO and WHO in the writing of this book. It was hoped to have the book available in English and French and possibly Spanish during 1987. The translation into other languages (Arabic, Russian, Chinese) would depend upon the wishes of the countries concerned.

Joint FAO/WHO Food Contamination Monitoring Programme

To promote the recognition, evaluation and control of environmental contaminants and hazards that might affect human health, FAO and WHO were actively participating in the health related monitoring activities of the Global Environmental Monitoring System (GEMS) sponsored by UNEP. The main objectives of the Programme were:

(i) to collect and evaluate data on levels of certain chemicals in individual foods;

(ii) to obtain estimates of the intake via food of specific chemicals;

(iii) to provide technical cooperation to the governments of countries wishing to strengthen food contamination monitoring programmeS; and

(iv) to provide the relevant Committees of the CAC with information on levels of contaminants/pesticide residues in foods in connection with the establishment of Codex standards/MRLs.

At present some 30 Member States were collaborating in this programme and one of the components of the Programme involved Analytical Quality Assurance to assist laboratories improve their analytical capabilities. Experience to date indicated that large differences existed between laboratories with regard to analytical capability and that, as a result, training and other assistance had been provided to improve on the quality of the data produced.

"Guidelines for the Study of Dietary Intake of Chemical Contaminants" had been prepared under the Programme (WHO Offset Publication No. 87, 1985) and distributed to all Codex Contact Points.

A summary of the 1980-1983 monitoring data had recently been published (WHO/EHE/FOS/86.2). For further publications of the programme please contact WHO's Food Safety Unit.

Guidelines for Can Manufacturers

The contamination of canned processed foods by lead and tin was a recognized problem in food quality control. The problem was particularly severe in tropical countries, where a combination of elevated temperatures and the limited availability of high quality tinplate, combined with extended storage or shipping times could lead to levels of contamination above those recommended by the Codex Alimentarius Commission. A publication "Guidelines for Can Manufacturers and Food Canners" had been prepared jointly by FAO and WHO to assist food processors in developing countries to meet the requirements of Codex Standards for levels of lead and tin in canned foods. The publication was now available as No. 36 of the Food and Nutrition paper series of FAO.

The book described the processes of can corrosion and the various factors which influenced the rate of corrosion. Practical advice to the processor in the choice of tinplate, manufacture of the preformed cans and handling of the cans during filling, was included. The publication also contained descriptions of methods for testing cans and for the analysis of foods.

Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Joint FAO/WHO Expert Committee on Food Additives (JECFA)

These Expert Groups had the task of toxicological evaluation of pesticides and food additives respectively and these evaluations led as a rule to the establishment of acceptable daily intakes (ADIs). In addition, the expert groups established i) maximum residue levels (MRLs) for pesticide residues in food commodities on the basis of data from supervised trials and ii) specifications for food additives. The expert reports of JMPR and JECFA on pesticides and food additives respectively formed the basis for establishing Codex MRLs and maximum levels of food additives in various foodstuffs.

Guiding Principles on Evaluation of Programmes to Ensure Food Safety

The aim of this document was to support the work of authorities in the development of food safety and related programmes through the provision of information, suggestions and possible methodology whereby i) progress in such programmes might be measured, and ii) resource utilization might be maximized.

In particular this document was intended to:

(i) Create awareness among food safety and food control personnel that evaluation was an essential management tool which ought to be employed where possible for maximizing the contribution of food safety to health and development;

(ii) Help in reviewing and analyzing national needs in food safety and determining appropriate measures necessary to meet those needs;

(iii) Guide food safety and food control personnel in the design, operation, choice of approaches and interpretation of results related to evaluation;

(iv) Provide examples of some of the objectives and basic indicators for the various subjects of evaluation.

Due to the differing states of development of food safety and food control activities in countries, the consequent applicability and uses of the proposed document varied. However, owing to the importance of evaluation for programme development, emphasis was primarily placed on conditions and possibilities as they related to developing countries. In this context, it was realized that a number of countries neither had an established food safety programme nor formal management systems. Nevertheless in these countries there were officials charged with the responsibility for food safety who from time to time should evaluate the progress of their programmes through different stages of implementation. Such evaluations were indispensable in that they could provide the basis not only for the reformulation of policies, but also for determining appropriate measures for the future development of programme activities.

The document had been published by WHO as a provisional edition (WHO/EHE/FOS/86.1 - FAO/ESN/MISC./86.1) in English, French and Spanish.

Prevention and Control of Foodborne Salmonellosis through the Application of the Hazard Analysis Critical Control Point (HACCP) System

This document had been prepared for WHO by the International Commission on Microbiological Specifications for Foods (ICMSF) and its publication was expected for the second half of 1986.

Programme for the Promotion of Food Safety through Public Awareness and Community Involvement

Food safety was an integral and necessary part of any public health programme or policy. In this context, a number of approaches have been taken up in an attempt to ensure food safety. The most widely known of these was

that based on inspection and enforcement of national laws and standards (the coercive approach). Unfortunately, while this was a necessary component of any food safety programme, the fact remained that the regulatory approach had, even under the best circumstances, only a limited applicability. This was particularly true in developing countries, where only a small part of the total food consumed was subject to inspection and where the quality of inspection and laboratory support was, to say the least, variable. Even in industrialized countries where food inspection and food safety laws and standards could be more feasibily enforced, the fact remained that these had served only to ensure the safety of food at the time and point of sale; safety at the time or at the point of consumption could not be, and had not been, significantly influenced by these measures. It was thus increasingly apparent that both consumers and food handlers should share the responsibility of ensuring food safety at different critical intervals along the food chain.

WHO had therefore developed a programme for the promotion of food safety through public awareness and community involvement and was now looking for extra-budgetary funding for its implementation. As a first step, a HACCP training course with financial help and in-kind contributions from the food industry was going to be held later this year in the Dominican Republic.

Inter-American Conference on Food Protection

Sponsored by the U.S. National Academy of Science, Canada, FAO and PAHO an Inter-American Conference on Food Protection was held in August 1985 in Washington, D.C. The conference decided on a five year/US $25 million action plan to improve the hygienic and nutritional quality of food produced and traded in the Region.

Statement by the Representative of the FAO Fisheries Department

17. The Representative of the FAO Fisheries Department informed the Committee of the relevant activities of the Department, particularly of the Fisheries Division, that had taken place since the last session.

The most important event during this period had been the FAO World Conference on Fisheries Management and Development which was held in Rome from 27 June to 6 July 1984. The Conference was so far the biggest gathering at the highest level responsible for management of world fisheries. It was attended by 62 ministers responsible for fisheries and delegates from 147 countries.

18. The main objective of the Conference was to discuss the world fisheries situation and the problems of adjustment to the new regime of the oceans. Of the many issues discussed, there were some which were of interest to this Committee.

19. In "The strategy for fisheries management and development" the Conference had recommended that "Efforts should be made to raise the quality of products to the levels required by export markets and to promote the implementation of quality standards at the national level, as agreed under the aegis of the FAO/WHO Codex Alimentarius Commission".

20. The recommendations made by the Conference had been incorporated in the work plan of the Fishery Industries of FAO. Its main activities over the last two years had been concentrated on the following subjects: strengthening the network of FAO Marketing Information and Technical Advisory Projects, improving handling and processing of fish in developing countries, supporting the regional cooperative research programmes, and strengthening quality control and fish inspection capacity of the developing countries.

21. Following the very successful establishment and operation of INFOPESCA in Panama and INFOFISH in Kuala Lumpur, two further Marketing Information and Technical Advisory Services had been established; INFOPECHE, located in Abidjan, Cote d'Ivoire which covered Africa, and INFOSAMAK, located in Bahrain, which covered the Arab speaking countries. The activities on marketing information of all regional projects were coordinated by the computerized centre in Rome GLOBEFISH. The projects were funded by the Government of Norway.

22. An important activity of all INFO projects was the provision of technical advice with emphasis on quality control and fish inspection as well as training on this matter. In 1985 INFOFISH organized a training course for fish inspectors in Jakarta, Indonesia, during which 18 inspectors from 7 countries were trained in all aspects of quality control and fish inspection.

23. Further national training courses on fish inspection were organized in May 1986 in Bangladesh and in Sri Lanka later in the year.

24. The course in Bangladesh will be followed later by a UNDP funded of 3 years' initial duration on "Fish Inspection and Quality Control".

25. Recognizing the urgent need to improve the quality of fishery products from Asia/Pacific, FAO is organizing the "FAO/INFOFISH Technical Consultation on Fish Inspection and Quality Assurance for Asia and the Pacific" in Cochin, India, from 11 to 14 November 1986. The Consultation will provide a forum for discussion for all parties concerned (industry, government inspection, research institutes, importers and import control agencies, finance ministries, etc.). It is expected that they will voice their differing viewpoints, exchange information on the various efforts already made, and identify difficulties, constraints and needs. The Consultation should conclude with a recommended plan of action to remedy the situation, to reduce the present losses due to poor quality and to stimulate further development of the fishing industry.

26. The sixth meeting of the Indo-Pacific Commission (IPFC), Working Party on Fish Technology and Marketing was held in Melbourne, Australia in October 1984, together with an associated symposium on storage changes in chilled and frozen tropical fish. The proceedings were now available (FIIU/R 317 SUPPL). At the meeting it was decided to pay more attention to quality assurance in the future programme of the Working Party. A collaborative study on hygiene of tropical shrimp involving seven institutions in four countries was recommended. The study will collect data on microbiological loads of shrimp, including salmonella, during processing under GMP conditions. After review of the results a decision on whether to suggest revision of the Codex or ICMSF microbiological specification for tropical shrimp would be taken.

27. In Latin America FAO had initiated a Cooperative Network of Fish Inspection Services. This network concentrated on the development of a system for an exchange of information within the region and with inspection agencies in major importing countries as well. The network also organized joint training activities in the field of fish technology, inspection and quality control.

28. So far four training courses had been organized on: fish inspection, health inspection of shellfish, canning, and evaluation of the thermal process.

Similar networks were foreseen for other regions as well.

29. The FAO Expert Consultation on Fish Technology in Africa was held in Lusaka, Zambia, in January 1985. During this meeting the problems of quality control and fish inspection were also discussed. The report and the proceedings (FIIU/R 329 and FIIU/R 329 Suppl) were available.

30. As in the past years, FAO had been active in the feld of training. The FAO/Danida Training Courses on Fish Technology and Quality Control had been organized in Tanzania, Ethiopia, Uganda, Mozambique, Guinea Bissau, Cape Verde, China and Dominican Republic. Two more regional courses were scheduled for this year, the first one in Dakar, Senegal, for the francophone African countries, and the second one in Bombay for Asia/Pacific.

31. The following new publications of interest to the Committee were available from FAO through the Distribution and Sales Branch:

- Histamine in marine products (FIIU/T 252)
- Cephalopods, handling, processing, products (FIIU/T 252)
- Planning and engineering data 2. Fish canning (FIIU/C 784)
- Planning and engineering data 4. Containers for fish handling (FIIU/C 773)
- Spoilage of tropical fish and product development (FIIU/R 317 Suppl.)
- FAO Species Catalogue:

  (Billfishes of the world (FIR/S 125 vol. 5))

  (Snappers of the world (FIR/S 125 vol. 6))

  (Clupeoid fishes of the world (FIR/S 125 vol. 7, two parts))
- Possibilities of processing and marketing of products made from Antarctic krill (FIPP/T 268).

REVIEW OF MATTERS RELEVANT TO THE COMMITTEE AS DISCUSSED BY: A) THE CODEX ALIMENTARIUS COMMISSION AND B) BY CODEX COMMITTEES

A. CODEX ALIMENTARIUS COMMISSION 16TH SESSION (ALINORM 85/47)

Feasibility of Developing a Codex Standard for Shark Fins and a Code of Practice for Aquaculture

32. The Commission noted that CCFFP intended to include in its next agenda the feasibility of developing a Draft Codex Standard for Shark Fins and a Code of Practice for Aquaculture which had been proposed by the Coordinating Committee for Latin America and the Caribbean and for which that Committee would provide the background documentation which it had considered at its fourth session. (See Agenda items 12 and 13) .

Water binding agents

33. The Commission was informed that the question of whether the class name "water binding agents" should be included instead of "phosphates" in the existing list of class names had been discussed by both the Codex Committee on Food Additives and Food Labelling. The latter Committee had agreed that the term should not be included at the present time and that because of the multi-functional uses of phosphates, the matter was referred back to the Committee for further consideration (see Agenda Item 6 (a)).

Sampling Plans

34. The Committee had forwarded proposals for sampling plans for Fish Blocks to the Codex Committee on Methods of Analysis and Sampling (CCMAS). CCMAS had made recommendations for further consideration at this session of the Committee (see Agenda Item 6(b)).

Hazard Analysis Critical Control Point (HACCP)

35. The Commission had noted that at its 31st Session the Executive Committee had examined the possibility of incorporating the above methodology into Codes of Practice/Hygienic Practice and had agreed that review and possible revision of some Codes might be required. The matter had also been considered by the Codex Committee on Food Hygiene which had recommended that individual Commodity Committees should consider the codes which came within their programmes. The Rapporteur had pointed out that the nine Codes so far developed by the CCFFP were combined Codes containing both technological and hygienic provisions of which the latter had been endorsed by the Codex Committee on Food Hygiene. Incorporation of the HACCP approach might pose special problems and the matter would be reviewed at this session of the Committee and referred to the Codex Committee on Food Hygiene (See Agenda Item 17).

Guidelines on Labelling Provisions in Codex Standards

36. The Committee noted that the above guidelines had now been adopted by the Commission and that the Standards elaborated by the Committee would require revision to bring them into line with the provisions of the Guidelines and the revised text of the General Labelling Standard. The Committee agreed that the Secretariat should prepare a working paper containing proposed amendments for the next session of the Committee.

Consideration of Revised Codex Standard for Canned Pacific Salmon at Step 8 (ALINORM 85/18, Appendix II)

37. The Commission noted that the Standard had been revised over the last five sessions of the Committee and defects tables had been added. The defects table had been tested extensively and the Committee was satisfied that it was workable. No Step 8 comments had been received.

38. The Commission was informed that the Codex Committee on Food Labelling (ALINORM 85/22A) had referred the question of date-marking back to the Committee since there had been some expression of opinion that some form of date-marking might be required.

39. The Commission noted that the Standard would be reviewed in the light of the Guidelines on Labelling provisions in Codex Standards and that the Committee could reconsider the matter at that time. Subject to the reconsideration of date-marking mentioned above, the Commission adopted the Codex Standard at Step 9 of the Procedure. The Committee noted comments on date-marking made by several delegations and accepted the offer of Canada to prepare a brief note on date-marking (see Appendix XII).

Draft Standard for Dried Salted Fish (Klippfish) of the Gadidae Fish Family at Step 5 (ALINORM 85/13A, Appendix V)

40. The Commission had noted that the CCFFP had made considerable amendments and added a defects table to the above standard. The CCFFP had agreed to incorporate the defects table so that Governments could test it and report results to its next Session. The Commission had agreed to advance the Draft Standard for Dried Salted Fish (klippfish) of the Gadidae Fish Family to Step 6 of the Procedure (see Agenda Item 8).

Proposal for Harmonization of Recommended Defects Tables in Standards for Quick Frozen Fillets of Cod/Haddock, Ocean Perch, Flat Fish and Hake at Step 5 (ALINORM 85/15, Appendix IV)

41. The Commission had been informed that the original defects table had been worked out by a Working Group at the 15th Session of the Committee and continued by the same Working Group which met in Bremerhaven before the 16th Session. The CCFFP had made further changes and decided that it was in a suitable state for testing by Governments and should be adopted at Step 5. The Commission had agreed with the point of view of CCFFP and had advanced the proposed Recommended Tables to Step 6 of the Procedure. (See Agenda Item 5)

Draft Code of Practice for Frozen Battered and/or Breaded Fishery Products at Step 8 (ALINORM 85/18, Appendix VII)

42. The Commission had noted that the Code had been reviewed and revised by a Working Group of the CCFFP at its 16th Session. The Committee had accepted the revised text and advanced it to Step 8.

The Commission had noted that no comments had been received on the Code and adopted it at Step 8 of the Procedure.

Feasibility of Elaborating a Standard for Blocks of Whole Headless and Gutted Fish

43. The Commission had been informed that CCFFP had examined a background paper on the above subject prepared by Australia and in view of the substantial trade in such products had decided to ask the Commission for approval to commence work on the elaboration of a standard. The Commission noted the discussions recorded in ALINORM 85/18 paras. 279-282 and agreed that work on such a standard should be undertaken by the Committee. (See Agenda Item 9).

Canned Sardines and Sardine-Type Products (CODEX STAN 94-1981)

44. The Commission had been informed that the delegation of Portugal, supported by the delegations of Spain, France and Switzerland had proposed that only products obtained from Sardina pilchardus should be classified as canned sardines and products obtained from other species of fish included in the standard should be classified as sardine-type products.

The Commission had noted that the matter had been thoroughly discussed at the 16th Session of the CCFFP (ALINORM 85/18, paras. 283-286). It had been considered that the labelling provision of the Standard gave adequate protection to the consumer and the Committee had agreed not to take any further action on the matter. The Commission had agreed with the Committee's decision.

45. The Committee, at this session noted that further comments had been received from Cuba and from Portugal and agreed to a further consideration under Agenda Item 18.

Microbiological Criteria for Pre-cooked Frozen Shrimps and Prawns at Step 5

46. The Commission had noted that the above criteria had been prepared for addition to the Code of Hygienic Practice for Pre-cooked Frozen Shrimps and Prawns as end-product specifications. The criteria had been discussed and agreed by both the Committee on Food Hygiene and the Committee on Fish and Fishery Products and CCFFP now recommended that Steps 6 and 7 be omitted and the provisions adopted at Step 8.

The Commission had agreed with the CCFFP recommendation and adopted the Microbiological Criteria at Step 8. The delegation of Poland had been of the opinion that the Criteria should stay at Step 6 for further comments by governments.

Status of the Standard on Food Grade Salt

47. The Commission had noted that the standard for Food Grade Salt had been completed except for the provisions on contaminants, having been before the CCFA for consideration for quite some time. Considering the urgent need for the standard by the industry and by the member countries, the Commission had adopted the Draft Standard for Food Grade Salt at Step 8 of the Procedure, with the proviso that the provisions on contaminants be included later into the standard, when finalized by the CCFA.

Utilization of Codex Codes of Practice in Member Countries

48. The Commission had noted that to date more than 30 codes had so far been elaborated and others were in progress. The more recent ones and those under revision took into account the hazard analysis critical control point (HACCP) approach.

Unlike Codex Standards, Codex Codes were voluntary texts and were not subject to acceptance. It was therefore difficult to assess the results of the intended purpose, that is to assist governments to ensure that foods were prepared under conditions of good manufacturing practice, in particular under sound hygienic conditions and to facilitate international trade.

The Commission noted that the Executive Committee had therefore "agreed that it would be appropriate to obtain information on how the Codes of Practice are used in Member Countries" (ALINORM 85/3, para. 162).

In CL 1985/11 February 1985 governments had been invited to supply information on the ways in which the Codex Codes of Practice were used in their countries both by regulatory authorities and by industry.

The Executive Committee had learnt that replies were received from Argentina, Cuba, Ireland, New Zealand, Netherlands, Norway and Thailand which, in general, showed that countries attached great importance to the Codes of Practice/Hygienic Practice for use in industry, by government regulatory authorities and in the drafting of new laws on foods. Some countries were translating the Codes into their national languages before using them as instructions to Quality Control Services and Industry; in some cases, countries had indicated that a large number of Codes were fully acceptable.

The Executive Committee had further recommended that reports on the utilization of the Codes be regularly reviewed through the Regional Coordinating Committee and requested, in particular, that countries be encouraged to make some case studies on the effect of the Codes on improving their commodity distribution systems.

The Commission had agreed that the codes of practice were valuable sources of information both to the developed and developing countries. The Commission had agreed with the suggestion of the Executive Committee that countries be encouraged to embark upon some case studies on the effect of the Codes on improving their commodity distribution systems. Reports on the utilization of the Codes should be reviewed by the Regional Coordinating Committees.

Consideration of whether there is too much detail in certain Codex Standards and whether some parts of these standards should be made optional

49. The Commission had had before it a paper (ALINORM 85/9) prepared by a consultant (D.S. Chadha). The paper had been prepared in response to the proposal recorded in paragraph 226 of the Report of the Fourteenth Session of the Commission (ALINORM 83/43).

The conclusions of the Commission were as follows:

(i) Codex Standards, being of a mandatory nature, should not include optional clauses providing for agreement between buyer and seller in regard to quality factors of an aesthetic nature, like styles, types of packs, etc., as this would not provide consumer protection and would not ensure fair practices in the food trade, especially when dealing with products where such criteria are important.

(ii) The Committees concerned should review their standards periodically, in order to consider whether they could be simplified by omitting or modifying some of the details about styles, dimensions or sizes, uniformity of sizes, defect tables, keeping in mind consumer protection, trade practices, changes in technological processing etc. However the initiative lies with the countries which wish to see changes made in the standards.

(iii) For the future, it may be necessary for the commodity committees to direct their efforts to the essential matters of composition, quality, hygiene, food additives and food labelling, taking into account the Work Priorities Criteria and any economic impact statements that may be submitted, but without sacrificing the details which are necessary for consumer protection, having regard to the nature of the products.

(iv) The Member Countries of Codex should take urgent steps to notify acceptance of the standards to the Secretariat. Even if they are not in a position to notify Full Acceptance, they may be in a position to notify Acceptance with Specified Deviations, or Target Acceptance, or a declaration of so-called "Free Entry".

(v) The Coordinating Committee for Asia is asked to identify those provisions in Codex Standards which need reconsideration and amendment. Detailed amendments would need to be put forward together with reasons for them.

Consideration of Recommendations of the Joint FAO/WHO Expert Consultation on Residues of Veterinary Drugs in Foods

50. The Commission had before it document ALINORM 85/7, containing a summary of the report of an FAO/WHO Joint Expert Consultation on Residues of Veterinary Drugs in Foods.

The Commission expressed its strong support for the recommendations of the Consultation, and agreed to establish a Codex Committee on Residues of Veterinary Drugs in Foods under Rule IX.1(b) of its Rules of Procedure, with the following Terms of Reference:

(a) to determine priorities for the consideration of residues of veterinary drugs in foods;

(b) to recommend maximum residue levels of such substances;

(c) to develop codes of practice as may be required;

(d) to determine criteria for analytical methods used for the control of veterinary drug residues in foods.

51. The Committee noted that for the purpose of the Consultation, the term "veterinary drug" was defined as "any substance applied or administered to any food-producing animal, such as meat or milk-producing animals, poultry, fish or bees, whether used for therapeutic, prophylactic or diagnostic purposes or for modification of physiological functions or behaviour."

B. SESSIONS OF CODEX COMMITTEES

CODEX COMMITTEE ON FOOD HYGIENE (CCFH) - 21ST SESSION (ALINORM 87/13)

Consideration of Microbiological Specifications for Frozen Cooked Crabmeat

52. CCFH had considered Document CX/FH 85/10 which contained the draft report of an Ad Hoc Working Group on Microbiological Specifications for Frozen Cooked Crabmeat (extract from the report of the 16th Session of the Codex Committee on Fish and Fishery Products).

The above Working Group had met during the 16th Session of the CCFFP to establish provisions for microbiological specifications for ready-to-eat crabmeat based on data collected from governments. It was noted that these data were derived from imported products only and that the views of producing countries were not available. The Committee was informed that the Working Group had, on the advice of the delegations of Cuba and Denmark, decided to accept the following provisions which were identical to those elaborated for pre-cooked shrimps and prawns:

Mesophilic aerobic bacteria

$n = 5,\ c = 2,\ m = 10^5,\ M = 10^6$

Staphylococcus aureus

$n = 5,\ c = 2,\ m = 500,\ M = 5000$

Salmonella

$n = 5,\ c = 0,\ m = 0$

The CCFH recalled that the General Principles for the Establishment and Application of Microbiological Criteria for Foods required that an appropriate Code of Practice should accompany microbiological specifications and was informed that the specifications under consideration were intended to be attached to the Code of Practice for Crabs (CAC/RCP 28-1983 Vol. B).

Several delegations held the view that it might not be feasible to apply to crabmeat the same microbiological specifications as for pre-cooked shrimps and prawns since processing conditions for the two types of products could vary in some countries and restrictive values could have a negative effect on the production of crabmeat in those countries.

Mesophilic Aerobic Bacteria

The delegations of the United Kingdom and Canada pointed out that the value of $m = 10^5$ was suitable under GMP for products in their countries; however, this might create problems in other countries. Again it was pointed

out that these data had been obtained from imported products and CCFH agreed that prior to their endorsement the deliberations of CCFH should be submitted to CCFFP, which in turn could request further comments from governments with a view to revising the present provisions.

Salmonella

The delegation of Canada drew attention to recent findings that outbreaks of salmonellosis could be provoked by a very small number of cells in such products as cheese, chocolate, or products prepared with pepper, and questioned whether the sample size was sufficient to assure a safe product. The delegation proposed to raise the value of n to 10 or 20.

The delegation of New Zealand informed the Committee that in order to obtain statistical confidence limits the number of samples would have to be increased to a very large extent. The delegations of the United Kingdom and Switzerland stated that several other factors contributed to the salmonella problem such as the type of food concerned and the type of salmonella involved. They, therefore, proposed that more data on crabmeat should be obtained. This was supported by the delegation of Canada.

The delegation of Switzerland indicated that it was important to have appropriate requirements for processing of crabmeat and instructions as to how to avoid recontamination of the product.

It was proposed to refer the microbiological specifications for salmonella back to CCFFP. This was supported by the delegation of India. The CCFFP decided to refer the above microbiological specifications back to CCFFP and to recommend to that Committee to consider (a) whether salmonella contamination was a problem in crabmeat specifically and, if so, (b) whether the sampling plan was adequate.

E. Coli

The delegation of Canada indicated that additional examinations for E. Coli were carried out. The CCFH decided to recommend to CCFFP reconsideration of the need to include a microbiological specification for E. Coli and, if feasible, to establish an appropriate provision for endorsement.

The CCFH decided not to endorse the microbiological specifications in paragraph 257 of CX/FH 85/10 at this time and to request the Secretariat to inform CCFFP of its above recommendations for further action.

53. The Committee decided to consider the matter under item 14.

CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING (CCMAS) - 14TH SESSION (ALINORM 85/23)

Report of the Ad Hoc Working Group on Alternative Sampling Plans for Fish Blocks

54. The Committee was informed that paras. 52-54 of ALINORM 85/23 dealing with the above matter could be considered by a Working Group further under Item 6(b).

Review of Codex Methods of Analysis

55. The Committee agreed that the Working Group established earlier (see para. 11) should examine and classify methods of analysis (for full terms of reference, see paras. 11 and 12).

CODEX COMMITTEE ON FOOD ADDITIVES (CCFA) - 18TH SESSION (ALINORM 87/12)

Establishment of Limits for Mercury in Fish

56. The Committee noted the following statement in ALINORM 87/12; "The Chairman of the WG informed the CCFA that the WG had discussed data on levels of mercury and methyl mercury in fish and shellfish. It had noted that there were no limits for mercury in the Codex Standards on Fish and Fishery Products.

The WG had also noted that not all the mercury in fish seemed to be present in the form of methyl mercury. The delegation of the U.S.a. pointed out that the figures presented in some papers had been wrongly calculated as regards the ratio of methyl mercury to inorganic mercury. The CCFA agreed that limits should refer to total mercury rather than methyl mercury, especially since total mercury was easier to measure analytically.

The WG, in reviewing the available data, considered a level 0.5 ppm appropriate as a limit for total mercury in fish. However, it recognized that for some specific species of fish, a higher level would be necessary. The CCFA agreed with the WG, that it was not yet appropriate to establish levels for mercury but first more data should be collected. It was agreed, therefore, that a Circular Letter should be sent out and more data collected and evaluated by the Joint FAO/WHO Food Contamination Monitoring programme.

It was also decided that the WG on Food Additive/Intake should consider this issue and should collect, through a circular letter intake levels on mercury, and on the types of mercury analyzed (i.e. inorganic/organic mercury ratio).

Regarding the question whether the WG should consider limits for mercury in fish in general or should restrict itself to limits in Codex Standards only, CCFA supported the view of the Chairman to consider general limits for fish and where necessary to elaborate limits for specific species of fish".

57. The Committee noted also that further documentation on this matter was available as a conference room document from the United States and agreed to defer discussion to Agenda Item 20 - Other Business.

58. Food Additives Provisions in:

A. Draft Standards for Quick Frozen Blocks of Fish Fillet, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh (ALINORM 85/18, paras. 142-148).

B. Draft Standard for Quick Frozen Fish Sticks (Fish Fingers) and Fish Portions - Breaded or in Batter (ALINORM 85/18, paras. 179-181).

C. Water-binding agents as a class name for Food Additives.

The Committee recalled that the above items had been included in the terms of reference of the WG on Food Additives (see para. 13) and that a report of the Ad Hoc Working Group would be discussed under the relevant Agenda Item.

CODEX COMMITTEE ON FOOD LABELLING (CCFL) - 18TH SESSION (ALINORM 85/22A)

Date Marking Provisions in:

Revised Draft Standard for Canned Pacific Salmon (Step 8) (ALINORM 85/18, Appendix II)

Proposed Draft Standard for Quick Frozen Blocks of Fish Fillets, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh (Step 3) (ALINORM 85/18 Appendix III)

59. The Committee was informed that CCFL had made the following decision:

"The Chairman of WG I informed the Committee that the CCFFP had decided not to include a provision for date marking in the Salmon standard because it was a low acid product which remained stable over a number of years.

The CCFFP had made a similar decision with regard to the Standard for Quick Frozen Blocks in line with a general decision of the Joint FAO/ECE Joint Group of Experts on the Standardization of Quick Frozen Foods not to require date marking for such products.

The delegations of New Zealand and Switzerland were of the opinion that even when date marking was not required, the fact should be so stated in the standard in view of the introductory wording in Section 4.7.1 of the Revised General Standard.

The delegation of Switzerland was further of the opinion that some form of date marking should be required even for certain shelf-stable products as a matter of information to the consumer.

The delegations of Australia, the Federal Republic of Germany, France, Israel, the Netherlands, Spain, Thailand and Zimbabwe agred with this point of view.

Other delegations and the Observer of IFGMA thought that the technological reasons given by the CCFFP justified exemption from date-marking, since with shelf-stable products abusive storage conditions were a major factor in which case no form of date-marking would be of information to the consumer.

After further discussion, the Committee decided not to endorse the provisions in the above standards but to refer them back to the CCFFP for further consideration".

60. The Committee, after a brief discussion, decided to appoint a small working group, coordinated by Canada, to provide a summary of the discussions

on date-marking as contained in previous reports (see Appendix XII). The Committee reconfirmed its decision on date-marking of Canned Pacific Salmon as contained in paras. 78-80 of ALINORM 85/18 for consideration by the CCFL.

CODEX COORDINATING COMMITTEE FOR ASIA (CCA) - 4TH SESSION (ALINORM 85/18)

61. At the Fourth Session of the above Committee, Thailand which is a big fish exporting country, had explained that it was facing problems regarding acceptance of certain standards elaborated by the Codex Committee on Fish and Fishery Products (CCFFP), and regarding certain codes of practice elaborated by that Committee. The delegation of Thailand suggested some amendments which the CCFFP should consider at its next session.

The Coordinating Committee agreed that the problems raised by Thailand were also experienced by other countries in the Region and expressed their wish that these problems be brought to the immediate attention of the CCFFP. The delegation of Thailand was requested to forward its proposals.

Acceptances of Codex Standards and Codes of Practice

62. The Committee was informed that further acceptances had been notified from the following countries.

Cuba Acceptance with specified deviations:

- Canned Tuna and Bonita in Water or Oil
- Quick Frozen Lobsters

Cuba also stated that it found the Codes of Practice of great service in particular those for Lobster, Smoked Fish, Salted Fish, Minced Fish and Crabs.

Finland Products in conformity with the following Codex Standards will be allowed free circulation in Finland:

- Quick Frozen Shrimps or Prawns
- Quick Frozen Lobsters
- Canned Shrimps or Prawns
- Canned Crabmeat
- Canned Tuna and Bonita in Water or Oil

Norway Different ministries are studying many Codex Standards including the Fish Standards in Volume V. Products conforming with Codex Standards will be allowed free circulation in Norway under specified conditions.

U.S.A. Free entry of the following products conforming to Codex Standards will be allowed under specified conditions:

- Quick Frozen Gutted Pacific Salmon
- Quick Frozen Lobsters
- Canned Sardines and Sardine type products.

HARMONIZATION OF DEFECT TABLES IN THE CODEX STANDARDS FOR QUICK FROZEN FISH FILLETS AT STEP 7

63. The Committee had before it Apppendix VI to ALINORM 85/18 containing a tabulation of Recommended Defect Tables in Standards for Quick Frozen Fillets

of Cod/Haddock, Ocean Perch, Flat Fish and Hake, which had been adopted by the Commission at its 16th Session at Step 5. The Committee had also before it the report of the 2nd "Harmonization" Working Group, (Bremerhaven, 28-30 April 1986) (CX/FFP 86/6). It was noted that the WG had considered comments on the table contained in CX/FFP 86/3 and Addendum I.

64. The Chairman of the WG Dr. H. Houwing of the Netherlands introduced the report and pointed out that the Group had also considered the defect tables for the Standard for Quick Frozen Fish Blocks and for Quick Frozen Fish Sticks and Portions. Furthermore a first draft for "Inspection Techniques for Quick Frozen Fish Blocks" had been drawn up.

65. The Committee noted that the relevant sections of the WG report would be discussed in connection with the Standards concerned and that the WG report would be attached as Appendix XIV.

66. It further noted that the Annexes to the WG report would be transferred to the relevant standards.

67. The Committee then proceeded with the detailed consideration of Annex A of the Working Group report which contained the Proposal for the Harmonization of Defect Tables in Standards for Quick Frozen Fillets of Cod/Haddock, Ocean Perch, Flat Fish and Hake.

68. Total Number of Demerit Points - The Committee agreed with the proposed wording. The Committee decided to consider the definitions of defects together with the relevant defect description and demerit points and agreed to a proposal by the Federal Republic of Germany to indicate at which stage (Frozen, Thawed, Cooked) the defect determination should be carried out. It was also agreed that for easier reference, the different types of defects should be numbered.

69. The Committee adopted the WG proposals for the following defects:

- Dehydration, ragged or torn fillets, small pieces.

Skin and Black Membrane

The Committee noted that the definition of skin had been amended to indicate that flat fish white skin was not regarded as a defect. It was pointed out that there might be some difficulty with fillets that were labelled "Skinless". Furthermore, there appeared to be a discrepancy between styles of presentation for flat fish fillets as such and flat fish fillets in blocks and that the styles and presentations of the fillets standard should be re-examined in view of the provision in the Block Standard which covered major styles in world trade. It was also suggested that appropriate labelling provisions could be developed to meet the specific requirements for fillets with white skin on.

The delegation of the Netherlands proposed to modify the provision editorially so that no penalty be attached to the presence of small pieces of white skin. After some further discussion it was agreed that a footnote be drafted to cover the point in a manner similar to the exceptions made for ocean perch fillets.

The Committee agreed to the following footnote: "In skinless Flat Fish, small pieces of white skin are not regarded as defects provided that the skin does not exceed more than 10% of the surface area of the fillets in the sample unit".

The Committee agreed with the provision for Scalkes, Colour Defects, Fins or parts of Fins and Defect Bones.

Critical Degree of Bone Defect

The Committee noted that there had been considerable discussion on the appropriate penalty for each critical bone. The Working Group had recommended that "any critical bone defects in fillets with pin bones removed would make the sample unit defective. In fillets with pin-bones in, such a critical bone would attract 8 points". Canada, Norway and Iceland had opposed this decision. The delegation of the United States, supported by Norway proposed to allocate 8 points in both instances.

The delegation of the Federal Republic of Germany supported by the United Kingdom were in favour of retaining the provisions as determined by the Working Group which represented a compromise between conflicting opinions. The presence of large bones in fillets with pin-bones removed would offend the consumer and was potentially harmful. The delegation of the Federal Republic of Germany also proposed to introduce a maximum limit for the presence of critical bone defects (see para. 15 of Appendix XIV to this Report).

The delegation of Norway substantiated its view that there was a natural limitation for bones and that fillets were rarely judged defective on critical bones alone. Severe penalties for aesthetic reasons should not lead to rejection of the product.

The Committee noted that the matter had been extensively discussed at the WG Session by the same delegations and that no new points had been brought forward to justify changing the provisions.

The Committee accepted the provisions for viscera and parasites. The delegation of Canada proposed to include in the Standard the full text of the candling method used for the detection of parasites and expressed concern that permission to use other non-destructive physical means without further specification would lead to different results. The Committee agreed to include the candling method as described in ALINORM 83/18 Appendix VI, Annex G as a defining method (Type I). It was noted that in this case, as progress was made in technology, other methods under development (Type IV) could be considered as tentative methods. The reference to other non-destructive physical means was therefore retained. (See also Other business - paras. 277-278 and Appendix XIII).

The delegation of the Federal Republic of Germany proposed to introduce overall limits for parasites. It was noted that this had already been discussed at Bremerhaven and no change was made. (See para. 16 of Appendix XIV).

The Committee agreed with the provisions for Foreign Matter, Odour and Flavour and Texture.

Maximum Allowable Tolerances for Defects in "Blocks" and "Fillets"

70. In referring to their written comments, the delegation of the Federal Republic of Germany proposed for the "Blocks" and "Fillets" Standards including the fish core portion of breaded/battered products, a uniform number of total demerit points, maximum 20; for individual fish species where special defects appeared more frequently, the tolerances might be increased if necessary. The present comprise provision of a global allocation of maximum 20 or 32 demerit points allowed for high instances of individual defects. The delegation therefore proposed that each defect should be evaluated per se.

71. The Committee agreed to retain the present provision since the above proposal did not find any support.

72. The Committee also noted that the revised defect table might require consequential amendment to sections in the relevant standards for quick frozen fish. This involved reviewing the standards and preparing a working document with proposed amendments.

It was agreed to take this matter up under future work (Item 21).

Status of the Defect Tables

73. The Committee advanced the revised Defect Tables in Standards for Quick Frozen Fillets of Cod/Haddock, Ocean Perch, Flat Fish and Hake as contained in Appendix II to Step 8 of the Procedure.

CONSIDERATION OF PROPOSED DRAFT STANDARD FOR QUICK FROZEN BLOCKS OF FISH FILLETS, MINCED FISH FLESH AND MIXTURES OF FILLETS, AND MINCED FISH FLESH AT STEP 4

74. The Committee had before it the above Standard as contained in ALINORM 85/18A, Appendix III. The report of the Bremerhaven Working Group (CX/FFP 86/6, Annex B) and Government Comments (CX/FFP 86/4, CX/FFP 86/4 Adds. 1 and 2) and a proposal from U.S.A. regarding the determination minced fish flesh. A proposal by the Federal Republic of Germany based on a comparative study of WEFTA and U.S.A. methods was presented as Conference Room Document 7 for the information of interested delegations who did not attend the Bremerhaven meeting.

Scope

75. The Committee noted that the scope as written was intended to apply not only to species currently in production but also to other species which might come into production in the future. The defects table however as presently drafted applied only to the families Gadidae Merluccidae and Scorpaenidae and the order Pleuronectiformes.

76. The proposal of the Federal Republic of Germany to include a footnote in the defect table was not pursued. The Committee agreed with the delegation of the U.S.A. that this Standard should have a scope which covered all fish blocks and left the Section unchanged. The Committee however recognized that in future defect tables for brown fish might have to be developed.

2. DESCRIPTION

2.1 Product Definition

77. The delegation of the Netherlands proposed to delete from 2.1 (a) and (b) "pieces of such fillets" since the present provision permitted blocks consisting of pieces only.

78. The delegation of the Federal Republic of Germany referred to a technique requiring the fish to be cut in strips before mixing with minced fish to achieve a better homogeneity of the product which was extensively used in Europe and proposed a definition for pieces/strips. It was noted that pieces were also used to ensure block regularity and that strips were covered by pieces.

The Committee left 2.1 unchanged.

2.2 Process Definition

79. The delegation of Portugal was of the opinion that the requirement for the maximum temperature of $-18^{\circ}C$ at the thermal centre should apply to the whole product.

2.3 Presentation

80. The Committee noted that there appeared to be inconsistencies in the Section 2.3 (a) as compared with the fillet standards. The Committee agreed to the following wording:

(i) Skin on, unscaled, pin bone present
(ii) Skin on, scaled, pin bones present or removed
(iii) Skinless, pin bones present or removed

81. There was an extensive discussion on the proposed amendment to Section 2.3(b). The Committee agreed not to take action on the very detailed proposal but to cover mixed blocks currently traded internationally in the following way "2.3. (b) Fillets, skinless, pin bones removed and minced fish flesh". Concerning Section 2.3 (d) it was agreed to include the wording approved by the Commission for other presentations as contained in Section 2.3 of the "Fish Fingers Standard".

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Material

82. There was a lengthy discussion on the need to include provisions for foreign/added water either in this section or in another appropriate place in the Standard. It was pointed out that it was difficult analytically to differentiate between the added and the naturally present water. A further complication was introduced through the use of water-binding and thickening agents. However, it was also pointed out that there might be different ways to control the amount of added water.

83. The delegation of the United Kingdom informed the Committee that work had been undertaken by the United Kingdom as well as the WEFTA group on the question and therefore this matter should be further discussed at the next session of the Committee in the light of Government comments. The delegation offered to provide a technical background paper including Government comments. It was agreed that the Secretariat would issue a circular letter on the subject as soon as possible.

3.2 Optional Ingredients

84. The Committee was informed that Sodium Chloride was used to maintain texture in certain products, for example fish blocks. It was noted that the use of seawater also increased the salt content of the product and the Committee, therefore, revised the wording to relate to the total Sodium Chloride as not exceeding 1% by weight.

85. The delegation of the Netherlands pointed out that in the absence of a provision for herbs and spices blocks containing such ingredients were outside the scope of the Standard.

3.3 Final Product

86. The Committee agreed that these provisions had to be brought into line with the revised defect table and decided that there was no need to repeat in extenso the requirement presently included in Sections 3.3.1, 3.3.2 and 3.3.3. It was agreed to replace the provisions by the following sentence "Blocks shall contain no more defects than are permitted in Annex B". Section 3.3.3 - (now 3.3.2) was reworded as follows: "Cooking, steaming, baking or boiling to determine any defects should be undertaken as set out in Annex A."

4. FOOD ADDITIVES

87. The Chairman of the Working Group on Food Additives presented a brief report on recommendations on this section. He indicated that substances for which no evidence of use was available had been deleted and that several new items had been included. Concerning this standard the WG had been of the opinion that the class name "water-binding agent" was a suitable descriptive term which should be retained. The Committee, recalling the discussions by CCFA and CCFL on the matter decided, however, to replace the class-name by the term "Phosphates" and "Alginates" as appropriate.

88. The Committee noted that these class names had to be endorsed by the CCFA and CCFL and the Committee requested those Committees to recognise that the newly proposed class names covered the specific needs in the standards of CCFFP to provide adequate information to the consumer.

89. The delegation of Thailand, referring to its written comments, pointed out that many of the food additives listed in the standard were not permitted in Thailand at the present time. However, food additives endorsed by Codex as a result of their technological justification would be carefully studied with a view to permitting their use in the future.

Antioxidants

90. The Working Group had proposed the addition of ascorbyl palmitate and the deletion of the gallates (Section 4.2.2). This was agreed by the Committee which decided to add asorbyl palmitate to Section 4.2.1 and to permit the total maximum level of 1g/kg expressed as ascorbic acid.

91. The Working Group also recommended the deletion of citric acid (4.3.1) which was permitted for minced fish flesh only because no data to justify its use were available to the Group. The Committee noted the comment by the delegations of Spain and Portugal on citric acid and its salts and decided to retain the provision unchanged.

Thickening Agents

92. The Committee agreed to amend Section 4.4.3 to read "pectins" so that different types were included.

93. The Committee pointed out that the technological justification for the additives contained in the standard had been provided during earlier sessions and agreed that more work had to be undertaken on this matter. It was decided to consider this subject further under Future Work - Item 21.

5. HYGIENE AND HANDLING

94. The delegation of Spain proposed to introduce a new Section 5.2(d) requiring that formaldehyde and dimethylamine should not be present, especially in the Gadidae.

95. Other delegations pointed out that a certain level of these substances were contained in virtually all saltwater fish but did not affect public health if the fish was properly handled.

96. The Federal Republic of Germany proposed an amendment to 5.1 and the deletion of 5.2 (b) in view of the discussion of the Bremerhaven Working Group on para. 5. This was not agreed.

6. LABELLING

97. The Committee considered whether the preamble contained in the standard should be amended having regard to the provisions for non-retail containers contained in the newly adopted guidelines for labelling provisions in Codex Standards. It was agreed that those provisions were applicable since the scope of the Standard applied to products for further processing only.

98. The Committee was informed that a number of decisions had to be taken by the Committee to adapt the guideline text to this particular standard.

99. The Committee recalled that a paper would be prepared for the next session of this Committee on proposed amendments in the labelling provisions of standards developed by the Committee which would also include this standard. It therefore limited its discussions to the following provisions.

Name of the Food 6.1

100. The Committee decided to delete the last sentence of Section 6.1.1 because it repeated requirements already included in the provision. Concerning Sections 6.1.2-6.1.3 the Committee considered the need to amend the provisions to reflect the revised provisions of Section 2.3 and agreed that this was the most appropriate way of relating to its presentation. The Committee agreed to retain Section 6.1.4 since this was a general provision included in all Codex Standards for quick frozen foods. Attention was drawn to para. 135 of ALINORM 85/18 concerning Section 6.1.5. The Committee confirmed its decision taken at the previous session and corrected Section 6.1.5 accordingly.

List of Ingredients 6.2

101. The Committee noted that ingredients should be declared in descending order of proportion.

Lot Identification 6.6

102. Several delegations were in favour of adding to the provision a requirement to declare the date of production which was important for the buyer of the product. This was agreed by the Committee. It was noted that the term "containers" was still in square brackets but that Codex definitions existed for "containers" as well as "non-retail containers".

103. The Committee decided that reference to "non-retail containers" was appropriate in Sections 6.6 and 6.7 and amended the provisions accordingly.

7. METHODS OF ANALYSIS AND SAMPLING

7.1 Sampling

104. The Chairman of the Working Group on Methods of Analysis and Sampling introduced the report relating to Alternative Sampling Plans for Frozen Fish Blocks. He pointed out that the Working Group had considered the alternative Sampling Plans proposed by the CCMAS as contained in document CX/MAS 86/6 - Revised.

105. The Committee thanked the Working Group for its excellent work and agreed to accept its recommendation to annex the Sampling schedule for Fish Blocks to the Standard and to include the WG Report as an Appendix to the final report. (See Appendix V).

106. It was agreed that the Sampling Schedule would be submitted to the CCMAS for consideration.

7.3 Quantities for Physical and Organoleptic Examination

107. The Committee noted that there were discrepancies in the section in comparison with the defects table and agreed to delete the provision. It also agreed to add the following wording "The detection of net weight and glaze shall be determined on a whole block in the frozen state".

7.4 Determination of Net Contents of Products covered by Glaze

108. The Committee noted that the use of glaze in fish blocks was not a common practice and that the more important problem was the addition of foreign water. The Committee noted that the question of foreign water and a possible method of determination would be discussed at its next session and agreed to leave consideration of glaze until that time.

7.5 Determination of Proportion of Fillet and Minced Fish Flesh in Quick Frozen Blocks prepared from Mixtures of Fillets and Minced Flesh

109. The Committee noted that two methods had been discussed by the Bremerhaven Working Group, one developed by WEFTA and the other by U.S.A. and had concluded that the methods provided comparable results. It was agreed to attach both methods to the standard to allow Governments to make comparative tests (see Appendix III).

Candling Procedure for the Detection of Parasites

110. The delegation of Canada drew attention to the above procedure which had been included in earlier versions of the Standard (ALINORM 83/18, Appendix VI, Annex "G") and proposed to reinstate the Procedure in view of reference to it in the defects table. The Committee agreed with the proposal and classified the method as a defining method.

Method of Analysis for Sodium Chloride

111. Several delegations pointed to the need to include methods of analysis for Sodium Chloride and food additives. The Chairman informed the Committee that so far no methods for food additives were included in Codex Standards. However, a general method for Chloride was available.

112. The Committee decided to include the method by reference and to classify it as type II.

8. CLASSIFICATION OF DEFECTS

113. The Committee decided to amend this section as a consequential change to the amendment to Sections 3.3.1 and 3.3.2 and agreed to the following wording: "A block which exceeds the tolerances for defects provided in Annex B shall be considered a "defective" sample unit."

9. LOT ACCEPTANCE

(i) Quality

114. The Committee decided to replace the term "defective" by "defective sample unit" and to amend the reference to the sampling plan in accordance with Section 7.1.

ANNEX A - Cooking Methods

115. There was considerable discussion on whether 70°C required by the method was appropriate since this could lead to changes in the texture. It was pointed out that evaluation must be made on a fully cooked sample and that the

AOAC method which required 70°C at the centre had been collaboratively studied and the temperature related to the protein coagulation point. No change was made.

The sample size of 200g as required in the defects table was introduced to replace the present sample dimensions.

ANNEX B

116. The Committee agreed to the format of the defect table recommended by the Bremerhaven Working Group (Annex B to CX/FFP 86/6) and discussed the tables in detail.

Block irregularity

The delegation of Japan agreed in principle with the defect description for length. However, it pointed out that a new category covering 0-3 mm should be introduced with 2 demerit points since the shorter block resulted in shorter final units in cutting. The Committee did not agreed to this proposal as it would represent zero tolerance for length.

Skin and Black Membrane

The Committee amended the provision for white skin as in the fillet standard.

Critical Degree of Bone Defect

The delegation of Canada repeated its comment that under (a) each critical bone should only attract demerit points. This was supported by Thailand.

The delegation of the Federal Republic of Germany provided the background to the present provision in the Standard. It was agreed to leave the provision unchanged. It was noted that the Standard was at an early step and further comments could be made.

Maximum allowable Tolerance for Defects

The delegation of Norway pointed out the block standards contained more items with demerit points which could lead to higher tolerances for blocks than for fillets. The delegation proposed to re-discuss the figure.

The delegation of the United Kingdom stated that because of the larger size of the blocks about 150 demerit points could be accumulated for one block. It considered this extremely high and offered to provide a discussion paper on this matter. The Committee agreed to attach the paper to Annex B for comments.

ANNEX C

Defect Table for Quick Frozen Blocks of Minced Flesh

117. The Committee noted that it had not been possible to incorporate the provisions of Annex C in Annex B.

Bones

118. There was an extensive dicscussion as to whether it was necessary to include a provision for each critical bone in minced fish flesh. it was noted that the presence of critical bones was possible due to defective equipment. It was also noted that in an extensive survey in the Federal Republic of Germany no such bones had been found. No change was made.

119. The proposal was made to develop methodology for the determination of calcium content since a provision was included relating to a maximum level of bone material. The delegation of the U.S.A. informed the Committee that an AOAC method had been developed for calcium content in mechanically deboned meat (AOAC Method 24062-24064, 14th Edition, 1984). It was further pointed out that a difficulty arose in using a chemical method because of the the natural calcium content of fish flesh and the possible additive effect of calcium salts of phosphates. The Committee considered the possibility of using a physical method of determining bone content by sieving after enzyme or alkaline digestion. The delegation of the Federal Republic of Germany informed the meeting that the WEFTA Group recommended a sample size of 1 kg for estimating bone defect in minced fish.

120. The Committee recognised that not enough information on the complex matter was available and agreed that Governments should be requested by Circular Letter to assess the methods and comments on sample size. The Secretariat was instructed to issue the Circular Letter as soon as possible.

ANNEX E

121. The Committee noted that the Bremerhaven meeting recommended consideration of a draft on "Inspection Technique for Quick Frozen Fish Blocks" (Annex E to CX/FFP 86/6). The rationale for this was given in para. 18 of the above report.

The delegation of the United Kingdom thought that the above Annex was a good starting point for the development of a step by step inspection procedure and the Committee agreed to include Annex E in the report (see Appendix III, Annex D). The delegation of the United Kingdom offered to provide additional data.

122. The Committee agreed that a Circular Letter should be issued requesting Governments to test the procedure.

Status of the Standard

123. The Committee agreed to advance the above standard to Step 5 of the Procedure and requested the Secretariat to request Government comments prior to its consideration by the Commission at Step 5.

The Standard is attached as Appendix III.

CONSIDERATION OF PROPOSED DRAFT STANDARD FOR QUICK FROZEN FISH STICKS (FISH FINGERS) AND FISH PORTIONS - BREADED OR IN BATTER AT STEP 4

124. The Committee had before it the above Standard in ALINORM 85/18 Appendix IV and comments thereon in CX/FFP 86/5 and Addenda 1 and 2. The Committee

noted that paragraphs 20-31 and Annex D of the Bremerhaven Working Group should also be considered.

1. SCOPE

125. There was considerable discussion on whether the last sentence should be deleted which excluded natural fish fillets from the Standard. The delegation of the Netherlands explained that all products labelled as fish sticks (fish fingers) or fish portions had to comply with all the requirements of this Standard and that products labelled as natural fish fillets or as fish fillets breaded or in batter were for that reason automatically excluded from the Standard. it was therefore not necessary to make a statement to this effect in the scope.

126. The Committee recalled that it had, two sessions ago, introduced this sentence to make it clear that products derived from natural fish fillets were not covered in the Standard. No change was made.

2. DESCRIPTION

2.2 Process Definition

127. The Secretariat was instructed to amend the references. The delegation of Switzerland suggested that the maximum temperature be raised to -15°C. It was also noted that according to the QF Handling Code during local distribution and retailing - 12°C could be reached. The delegation of Norway felt that even -18°C was too high and not appropriate for frozen foods. No change was made.

2.3 Presentation

128. The delegation of the Federal Republic of Germany drew attention to its written comments which proposed a very detailed scheme of presentation including requirements for the proportions of fish flesh and coating.

129. Other delegations pointed out that the forms of presentation were adequately covered in the labelling section and in 3.2.1. No change was made.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.2 Final Product

130. The delegation of the Netherlands strongly opposed the minimum requirement for proportions of fish flesh core of 50% and proposed at least 60%. This was supported by the delegations of Belgium, France, Federal Republic of Germany, Poland and Switzerland.

131. The delegation of the United Kingdom drew attention to the written proposal of the Federal Republic of Germany and wished to relate the minimum percentage to the unit size of the product. It proposed to place those figures in square brackets for further comment. The delegation of Spain was also in favour of a size/coating ratio.

The delegation of the U.S.A. drew attention to technoligical developments which might result in products for which a higher fish core content may not be appropriate and indicated a preference for the single figure of 50% in the Standard. This was supported by the delegations of Norway and Denmark. The Committee decided to place the figure of 50% in square brackets and to put the proposal of the Federal Republic of Germany into the report for further comment.

132. The proposal reads as follows:

"3.2.3 Minimum Requirements for Proportions of Fish Flesh Core:

		% of declared net weight of the product
(a)	Fish fillet portions > 50g	
	- raw breaded or partially cooked in batter	60
(b)	Fish fillet portions ≤ 50g including fish sticks (from fillets, also with re-added minced flesh)	
	- raw breaded or partially cooked	55
	- in batter	50
(c)	Minced fish portions (fish content)	
	- breaded or in batter	50
(d)	Other presentations	≥50 "

133. The Committee agreed that Sections 3.2.2 - 3.2.5 should be revised in accordance with the defects table.

3.3 Optional Ingredients

134. The Working Group on Food Additives proposed that the section be amended as follows:

> "Other ingredients may be used. They shall be suitable for human consumption and shall be free from abnormal taste, flavour or odour. Examples of such ingredients include: spices, herbs, vegetable seasonings, cereal flours, potato flour, sodium chloride, spice, oils, glucose, lactose, dextrose, malt extract, skim milk powder, egg and corn syrup."

135. The Committee agreed that the list of optional ingredients should be open-ended and should contain some examples including spices such as turmeric and paprika which would also act as colouring agents in the coating and could therefore be used instead of artificial colours.

4. FOOD ADDITIVES

136. The delegation of Switzerland questioned the need for different lists as presently included in this Standard and held the view that for the consumer only the maximum level in the final product was of interest.

137. The Committee decided to make no change since it agreed with the point of view that the functional purposes of the additives listed were clearer if the list remained in two parts. The Committee agreed to amend the provision for water-binding agents and antioxidants as in the "Block Standard".

138. Section 4.3.1.7 was amended by replacing "carbonates" by "carbamates".

4.3.2 Flavour Enhancers

139. The Committee agreed to include a provision for monopotassium glutamate.

4.3.3 Colours

140. The delegation of Sweden opposed the use of food colours since even small amounts of certain colours could cause adverse reactions. The Chairman of the Working Group pointed out that little information on the use of colours had been available and proposed therefore to eliminate the following from the list:

Betacarotene
Other carotenes
Azogeratinine or Red 2G
Tartrazine 19140
Sunset Yellow FCF 15985
Red 40
Ponceau 4R

but to add Canthaxanthin. The Committee agreed to the amended list.

4.3.5 Thickeners

141. The Committee agreed to the proposal of the Working Group to add methylcellulose and to establish a global maximum level of 5g/kg singly or in combination for thickeners.

142. The observer of MARINALG pointed out that thickeners were normally used at a maximum of 5g/kg: for carageenan and Sodium alginate 8g/kg was more realistic.

4.3.6 Emulsifying agents

143. Section 4.3.6.1 was amended to read monoglycerides of fatty acids.

4.3.7 Chemically Modified Starches

144. Sections 4.3.7.3 and 4.7.3.13 were merged.

145. The Committee considered a Working Group proposal to introduce the following new sections:

4.3.8	Anti-foaming agents for Frying Oil
4.3.8.1	Dimethylpolysiloxane
4.3.9	Antioxidants for Frying Oil
4.3.9.1	BHA and BHT

146. It was noted that the above additives were only present in small quantities and had no function in the final product. They were therefore covered by the carry-over principle adopted by the Commission and no new sections were needed.

147. The Federal Republic of Germany drew attention to its written comment which reflected its position on food additives in the Standard. The delegation of Switzerland supported by France and Thailand reserved its position on the use of phosphates.

6. LABELLING

148. The Committee noted several comments from delegations on Section 6.1.4 and 6.1.6 which related to national labelling requirements and agreed that such specific requirements might be accommodated by specified deviations at acceptance.

7. METHODS OF ANALYSIS AND SAMPLING

7.4 Estimation of Fish Flesh Core

149. It was agreed to include reference to the WEFTA method in the "Blocks Standard".

ANNEX B

150. The Committee agreed to consider the revised version of the Annex D to the Bremerhaven Working Group Report.

151. The Committee noted that provisions for size uniformity still contained square brackets and that the reasons for this were given in para. 24 of the Working Group report (see Appendix XIV to this report). It was agreed that further comments be requested.

Foreign Matter

152. The delegation of the United Kingdom thought that packaging material in the core of fish sticks was objectionable and should attract more demerit points. It was agreed that the figures should be placed in square brackets for further consideration.

Added Water

153. The Committee recalled its earlier discussion on foreign water and decided that the next session of the Committee should also consider whether added or foreign water could included in the defects table.

154. In addition to the discussion on the subject (see paras. 82-83) the following was mentioned for further discussion: suitable methods of analysis, alternative means of expressing foreign water (protein/water ratio). It was noted that WEFTA had determined protein content of 14-20%. The delegation of the United Kingdom agreed to coordinate government comments.

155. The delegation of the United Kingdom proposed that as for the "Blocks Standard" instructions for inspection procedures should be provided at a future time (see para. 121).

156. It was agreed to add the Candling Procedure to Section 7 - Methods of Analysis.

Status of the Standard

157. The Committee agreed to advance the above Standard to Step 5 of the Procedure and to request comments by the procedure indicated for the "Block Standard". (see para. 123)

158. The Committee expressed its appreciation of the excellent work carried out by the Bremerhaven Working Group chaired by Mr. Houwing of the Netherlands.

159. The Committee also thanked the authorities of the Federal Republic of Germany for generously providing hosting facilities for the Working Group for a second time.

PROPOSED DRAFT STANDARD FOR DRIED SALTED FISH (KLIPPFISH) OF THE GADIDAE FISH FAMILY AT STEP 7

160. The Committee had before it the above Draft Standard (ALINORM 85/18 Appendix V) and Government comments (CX/FFP 86/7 and Add. 1).

1. SCOPE

161. The delegation of Japan referred to its written comment in which it had proposed that the Standard not apply to skinless products, and to amend the Scope Section accordingly. This was because the skinless type produced in Japan had different specifications which were not included in this standard. It was also noted that international trade was mostly in skin-on type products. It was recognized that, as presently drafted, the standard would include skinless types under "other presentation".

162. The delegation of Norway thought that the provision should be retained. The Committee agreed to leave the provision unchanged.

2. DESCRIPTION

2.2 Process Definition

163. The delegation of Canada pointed out that the Section contained reference to only one style. The Committee agreed to amend the provision by deleting the second sentence and adding the following: "... and according to the different types of presentation as defined in Section 2.3".

2.2.2 Drying

164. The delegation of Norway was of the opinion that there was no need for controlled conditions in artifical drying. The delegations of Japan, Netherlands and Portugal wished to retain the present provision which was

necessary to obtain good quality products. It was noted that the need for control depended mainly on the climate and that in Norway there were naturally favourable climatic conditions. It was agreed to amend the provision to make control optional.

2.3 Drying

165. The delegation of Canada proposed to delete sections 2.3.3 - 2.3.6 as this could be covered under "other presentations". This was supported by Norway and Portugal and agreed to by the Committee.

3.1 Raw Material

166. On the proposal of Norway, the Committee deleted the part of the Section after ..... "fully salted".

4. FOOD ADDITIVES

167. The delegation of Switzerland supported by France and the Federal Republic of Germany expressed its reservation to the use of sorbic acid in a product with a low water content.

168. The delegation of Norway pointed out that sorbic acid was to inhibit the growth of halophilic bacteria and moulds. The delegation of Portugal stated that there should be maximim levels for the surface, and appropriate methods of analysis and sampling procedures.

169. Several delegations stated that they would prefer a maximum level of sorbic acid in the final product to the present level which applied to the surface only, since it was difficult to develop methodology to determine surface level. Furthermore, for the consumer, the total content was of interest. No change was made. The delegation of Japan was of the opinion that sorbic acid should be assessed by weight.

7. LABELLING

170. The Committee fully considered whether the product was packaged only in non-retail containers or whether there was a need to provide for retail containers. Several countries indicated that the product was sold either packed, wrapped or unpackaged direct to the consumer. The Committee agreed to include provisions for both types of packages and noted that the revised text would be included in the working paper on labelling.

171. The Committee decided to include a section on a list of ingredients since food additives were permitted.

8. METHODS OF SAMPLING EXAMINATION AND ANALYSIS

172. The title of Section 8.1.1 was amended to read "sampling for organoleptic examination".

Concerning Sections 8.1.1 and 8.1.2 the Committee noted that CCMAS had elaborated General Principles for Sampling and had considered the possibility of establishing a uniform sampling plan for the determination of net weight.

This had not been possible and Committees had been requested to consider appropriate plans for their Standards (ALINORM 83/23 Appendix V).

173. The Committee agreed to leave the provisions unchanged.

ANNEX A

174. In view of the fact that the Standard for Food Grade Salt had now been finalized, several delegations questioned the need for the specific provisions in Sections 2 and 3 of Annex A.

It was noted that there were different specifications in the Code of Practice for Salted Fish, for salt in the present Standard and in the Codex Standard for Food Grade Salt. The producer countries informed the Committee that the low level of copper and iron were needed to avoid discolouration and that calcium and magnesium were needed to provide suitable firmness and appearance of dried salted fish. The question was also raised as to whether the salt specification should only appear in the Code of Practice for Salted Fish and not in the Standard.

175. The Committee agreed to transfer Annex I to the Code of Practice and to adjust Section 2.3 accordingly.

ANNEX B

176. The Committee agreed with the view of Canada that the defect table applied to presentations covered by 2.3.1 and 2.3.2 only. The Committee also agreed to consequential amendments which are contained in the revised version of the text in Appendix VI.

The delegation of Japan proposed lower demerit points for "extensively cracked, ragged, completely broken or liver stained" dried salted fish, since such products were re-processed and widely consumed in its country.

The Committee left the Standard unchanged since it should be a minimum standard for products traded internationally.

177. The delegation of Portugal referred to its written comments proposing the introduction of the following defects:

Defect Description	Demerit Points
Presence of Blood:	
In blood vessels and in the flesh (each instance)	36
In blood vessels (each instance)	24
In the cut section of large blood vessels (each instance)	16

178. It pointed out that the presence of blood was a cause of more rapid deterioration. The delegation of Norway considered this defect to be aesthetic only and was a defect which resulted in a lower price. Several delegations thought that the Committee should amend the defect tables by including in this Standard similar provisions as in others.

179. The delegation of Canada proposed the following alternative provisions:

"Discolouration. Any fish showing > 50% of the face of the fish with intense bruising - defective."

"Blood Clots. Any single or combination of blood clots > 5% of the total surface area - defective."

180. The delegation of Portugal could not agree with the expression of defect as a percentage and thought that the demerit points should be lower.

181. The Committee agreed to request comments on both proposals.

Status of the Standard

182. The Committee decided to return the draft standard to Step 6 of the Procedure. The Draft Standard is attached as Appendix VI.

STANDARD FOR FROZEN BLOCKS OF WHOLE HEADLESS AND GUTTED FISH

183. The Committee had before it CX/FFP 86/8 Add. 1 ("WEFTA Document") entitled "Quality Assessment of Whole Fresh Frozen Fish". The Committee noted that no Government comments had been received. It was also noted that following the recommendation of the Committee (para. 279-282, ALINORM 85/18), the Commission at its 16th Session had agreed that the Committee should develop such a standard.

184. The Committee discussed whether a standard should cover blocks for direct consumption and blocks for further processing.

185. The delegation of the U.S.A. referred to a brief study on export/import trade in individually block frozen products which showed that both categories were traded and that there were no problems with quality control. The provision in such a standard should be broad and cover a variety of sizes and species.

186. The Chairman recalled that it had been recognized at previous sessions that the product was substantially traded and had a high potential for further expansion. The original paper drafted by Australia in cooperation with several countries and had found support from other countries when discussed by the Committee.

187. The Committee noted that no delegation was at present prepared to elaborate a first draft standard.

188. The delegation of the Netherlands enquired whether the data required by the work priority criteria (trade + consumer protection) were adequate justification for the development of a standard.

189. The Committee, taking into account the view expressed by the Commission at its 16th Session, as well as the present discussion, decided to retain the proposal for such a standard in its current work programme but to postpone further work on the standard for a future meeting.

CONSIDERATION OF DRAFT CODES OF PRACTICE

190. As requested by the Committee, an ad hoc Working Group comprising members of the delegations of Australia, Canada, Cuba, Denmark, Federal Republic of Germany, the Netherlands, Poland, Thailand and U.S.A. met under the chairmanship of Mr. Z. Karnicki (FAO). They reviewed the Draft Code of Practice for Cephalopods in the light of comments either received or made known by the various delegations represented and also considered the need to elaborate a Codex Code of Hygienic Practice for Aquaculture as well as inclusion of the HACCP Concept in Codes of Practice for Fishery Products.

Draft Code of Practice for Cephalopods (ALINORM 85/18, Appendix VIII)

191. The only comments received were those from Thailand, Denmark, Poland, Japan and New Zealand.

192. Following the written request made by the Government of Japan, the Working Group found it appropriate to expand the scope of the Code and include the following genera of squid (Illex, Nototodarus, Ommastrephes, Berryteuthis, Watasenia, Thysanoteuthis) and octopuses (Paraoctopus).

193. The following sentence was added at the end of explanatory note in para. 4.2.1.

"Use of well caulked timber which is in sound condition on an exposed deck provided that it is thoroughly washed is acceptable".

194. Paragraphs 4.6.2.3 and 4.6.2.4 have been combined under a common heading as follows:

> "4.6.2.3 The Cephalopods which are to be transferred to the processing hall should be chilled rapidly in melting ice or in chilled sea water or refrigerated sea water and should be stored so that the temperature does not rise."

The explanatory text of the previous para. 4.6.2.3 has been moved unchanged to the bottom of the new para. 4.6.2.3 and subsequent paragraphs have been renumbered accordingly.

195. Paragraph 4.6.3.2 has been moved ahead of paragraph 4.6.3.1 and the first sentence of the explanatory text starting with the words "during the gutting of squid ... etc." deleted.

196. The Working Group was lacking in experience of salt water treatment of cephalopods as provided under paragraphs 4.6.3.4 and 4.6.3.5 and decided to retain square brackets seeking further advice on this matter in the next round of Government comments.

197. The last sentence of paragraph 4.6.4.3 starting with the words "For best ... " should be deleted.

198. The heading of para. 4.6.4.8 should read:

"Frozen Cephalopods should be protected from dehydration and oxidation in the freezer store e.g. by glazing and wrapping immediately after freezing".

199. The last sentence of para. 5.1.3.5 on page 147 starting with the words "Ice used in the operation ... etc." should be in capital letters as the heading of a new paragraph 5.1.3.6. The remaining explanatory text on p. 148 is unchanged. Subsequent paragraphs should be renumbered accordingly.

200. The following paragraphs were renumbered:
5.3.5 becomes 5.3.7, 5.3.6 becomes 5.3.8, 5.3.7 becomes 5.3.5 and 5.3.8 becomes 5.3.6.

201. The recommendations given in para. 5.4.4 "Dry-salting" were to some extent contradictory to product process definition and were not sufficient to provide adequate technical guidance on this processing method. As no information on this matter had been received from Member Governments, the Working Group decided to retain square brackets until further clarification from Governments which had experience in this particular processing method for cephalopods was provided.

202. The Working Group agreed with the written comment from the Government of New Zealand that requirements for production of unsalted-dried cephalopods as indicated in the flow-diagram (Appendix II) should be elaborated and included in this Code of Practice.

203. The Working Group did not find Appendix I "General Deck Layout of Squid Jigging Vessel" relevant, and recommended its deletion.

204. The amended text of the Code as presented to the Committee was adopted.

Status of the Code

205. The Committee agreed with the recommendation of the Working Group to request advancement of the Code to Step 5 of the Procedure. The Code is attached as Appendix VII.

FEASIBILITY OF DEVELOPING A STANDARD FOR QUICK FROZEN SQUID AND OTHER CEPHALOPODS

206. The Committee had before it a background document on Frozen Squid prepared by the U.S.A. in collaboration with the Federal Republic of Germany and Poland (CX/FFP 86/10) and FAO Fisheries Technical Paper No. 254 on the Handling and Processing of Cephalopods. The background to this item is given in paras. 290-291, ALINORM 85/18.

207. In introducing the paper, the delegation of the U.S.A. pointed out that an information document on Quick Frozen Squid had been circulated to interested member countries but little response had been forthcoming. Appendix 2 of the paper provided a general outline of provisions which could be included in the general standard for frozen squid products. The delegation invited further technical expertise from interested countries.

208. The delegation of Thailand agreed in principle with the draft document but proposed to include frozen cuttlefish of which there was a large production in Thailand. The paper was also supported by Norway and Brazil.

209. The Committee agreed in principle to elaborate a standard for Frozen Squid and requested the U.S.A. to continue its work as coordinator in the further preparation of a draft.

210. The Committee discussed at great length wether other Cephalopods (cuttlefish and octopus) should be included and whether provisions should be made for breaded and battered products.

211. The Committee decided to begin with a Standard for Frozen Squid only and, depending on the expertise available and the cooperation offered, to examine later the possibility of expanding the Standard.

212. The delegations of Japan, Norway, Poland, Portugal, Spain and Thailand offered their cooperation.

213. The Committee expressed its thanks to the U.S.A. for the background paper and for their continued cooperation in preparing a paper for the next meeting.

FEASIBILITY OF DEVELOPING A STANDARD FOR DRIED SHARK FINS

214. The Committee had before it CX/LA 85/6 Part III containing a proposal for the need to elaborate a Regional Standard for Dried Shark Fins and CX/FFP 86/2 containing the background (para. 426 of the report of the 16th Session of the Commission and paras. 159-163 of the discussions at the CCLAC).

215. The document was introduced by the delegation of Cuba who offered to place its country's expertise at the disposal of the Committee, and requested whether a regional or world-wide standard was envisaged.

216. It was pointed out that the trade statistics in the background document showed that the product was traded in more than one region and that in this case if a standard were to be developed it should be on a world-wide basis.

217. The Committee noted that a first draft of a standard had been prepared by Cuba but was not yet available as a working document.

218. The Committee noted that much of the expertise was in the regions of Asia and Latin America and agreed to request FAO to provide overall coordination for the elaboration of the Standard by the Committee.

219. The following procedure was to be followed. The draft paper prepared by Cuba would be translated and submitted to the Regional Coordinating Committees and to the participants of this Committee. The comments would be considered by the Coordinating Committee for Latin America and the Caribbean which would, in cooperation with the Secretariat, prepare a Proposed Draft (world-wide) Standard for consideration by the Committee.

The delegation of Switzerland requested that in the preparation of the standard, the necessity to avoid fumigation with methyl bromide should be taken into account.

CONSIDERATION OF THE NEED TO ELABORATE A CODEX CODE OF HYGIENIC PRACTICE FOR AQUACULTURE

220. The Chairman of the Working Group presented the following report:

"The Working Group had before it the two documents CX/LA 85/6, Part III - Add. 1, prepared by Cuba and CX/FFP 86/15, prepared by U.S.A., both reflecting the recommendations of the 16th Session of the Codex Alimentarius Commission (1-12 July 1985) held in Geneva requesting the Committee on Fish and Fishery Products to consider the need and feasibility of developing a Code of Hygienic Practice for Aquaculture.

221. The Working Group, being aware of the rapid development and growing importance of aquaculture in the provision of animal protein all over the world, came to the agreement that the elaboration of a Code of Hygienic Practice is desirable though not an easy task.

222. The Working Group recommends that FAO should be requested to prepare a working document on this matter for consideration during the next session of the Committee.

223. It was suggested that the document should concentrate on the hygienic practice of importance in the final product quality and provide guidance in technical matters only when necessary. The document CX/FFP 86/15 prepared by the U.S.A. shall be used as a framework aid, with the Recommended International Code of Hygienic Practice for Molluscan Shellfish (CAC/RCP 18-1978) serving as a useful example. "

224. The U.S.A. was of the opinion that the recommendations of the Working Group should go further and that a Code of Practice should be prepared. This was supported by Cuba.

225. The delegation of India also supported the elaboration of a Code and emphasized the importance of including both temperature and tropical species.

226. The representative of the FAO Fisheries Department preferred the elaboration of a Working document rather than the drafting of a Code at the present time and offered to prepare such a document. The delegation of the United Kingdom questioned whether such a Code on the production of raw material would fit into the Codex framework.

227. The Committee agreed that the main aspects of the Code would be hygienic provisions related to the protection of the consumer. The Committee also noted that the Commission had already agreed to the elaboration of a Code.

228. The Committee agreed with the recommendations made in para. 224 and thanked the Working Group for their excellent work.

MICROBIOLOGICAL SPECIFICATIONS FOR FROZEN COOKED CRABMEAT

229. The Committee noted that no comments for further consideration of the above item had been received. It agreed to defer further discussion to the next session of the Committee. The Secretariat was requested to re-issue the circular letter and to emphasize that information on microbiological criteria would be required from producing countries.

230. Several delegations re-stated that it was not possible to compare microbiological criteria for mechanically processed products (shrimps and prawns) with hand-peeled crabmeat.

231. The delegation of the U.S.A. thought that the CL should refer to the following:

a) Whether it was appropriate to use the shrimps and prawns provisions for cooked crabmeat.

b) Whether the sampling plan for Salmonella was statistically significant.

c) Whether provision for E. Coli should be added to the criteria.

232. The delegation of Belgium pointed out that concerning E. Coli in crabmeat, cost/benefit considerations should be borne in mind and that data were needed from processing plants working under GMP.

OBJECTIVE METHODS OF DETERMINING THE FINAL QUALITY OF SALTED HERRING DURING PROLONGED STORAGE

233. The Committee had available document CX/FFP 86/12 on the subject, prepared and presented by the delegation of Finland. It was recalled that in 1977 a previous attempt to prepare such a paper covering all fish had been discontinued.

234. It was hoped that in limiting the paper to Salted Herring appropriate provisions could be agreed on and that the document could usefully serve as an Appendix to the Code of Practice for Salted Fish.

235. The main sections concerned monitoring of product quality, the control of factors affecting the amount of the edible part of the fish and the detection of levan- and dextran-forming bacteria.

236. The Committee agreed not to discuss the paper in detail but to send it for comments at Step 3 with a view to developing an Appendix to the Code for Salted Fish (see Appendix IX).

237. The Committee expressed its appreciation to Finland for the preparation of the document.

REVIEW OF METHODS OF ANALYSIS AND SAMPLING IN FISH AND FISHERY PRODUCTS STANDARDS

238. The Chairman of the Working Group Mr. K. Dale (United Kingdom) introduced the report of the Working Group and pointed out that at some future date it will be necessary to review all standards to ensure that relevant methods of analysis appear in the appropriate section in each standard and at suitable intervals assess the validity of the current methods in order to recommend amendments to keep abreast of developments.

The Working Group recommended that when methods of analysis are added to draft standards, the Committee should note the appropriate classifications.

239. With regard to the methods of analysis already included in both the existing and draft fish and fishery products standards the WG recommended the classification required by CCMAS.

240. The Committee agreed with the recommendation of the WG and decided that the report of the WG should be included as Appendix X to the report.

241. The Committee noted the lack of methods indicated by the WG and accepted with appreciation the offer of the delegation of the United Kingdom to prepare a paper containing proposals for methods for review at the next session of the Committee.

242. It also expressed its appreciation to the WG.

INCLUSION OF HACCP CONCEPT IN CODES OF PRACTICE FOR FISHERY PRODUCTS

243. The Working Group reviewed the document CX/FFP 86/2 Add.1 prepared by the U.S.A. entitled "Proposal for Revised Version of the Recommended International Code of Practice for Shrimps and Prawns to include HACCP Notes".

244. Though the Working Group had found the idea of HACCP notes to be included in codes of practice a valuable one, it also had the impression that most of the provisions given in CCP notes were already covered by the relevant paragraphs of the Code of Practice.

245. The WG was therefore recommending the inclusion of the above-mentioned document into the final report of the Committee for Member Government comments.

246. The WG had drawn the attention of the Committee to the fact that inclusion of the HACCP notes into Codes of Practice, most of which were already finalized, though valuable, would create a significant technical problem and could only be done in a gradual way.

247. After a short discussion, the Committee agreed to the recommendation of the WG and to attach the above proposal for a revised version of the "Shrimps and Prawns" document to the report (see Appendix XI). It was agreed that comments should be requested on the document. The document of the U.S.A. recalled that the Commission had decided that new Codes should include HACCP notes and expressed the view that the existing Code provided already adequate hygienic advice and that all Codes might not require such revision. It was agreed that the views of Government should be obtained on this point.

INCLUSION OF OPHYSTONEMA OGLINUM (AND SARDINE SARDINELLA) IN THE CODEX STANDARD FOR CANNED SARDINES AND SARDINE TYPE PRODUCTS

248. The Committee noted that concerning Sardine Sardinella, enquiries had shown that such a species description could not be found in any reference works on taxonomy and since no supporting evidence had been received on this point, decided not to pursue the question of its inclusion in the "Canned Sardines" Standard.

249. It also noted that information concerning Ophystonema oglinum had been received from Cuba. An extract from the FAO Species Catalogue describing the species was also available.

250. The Committee noted that the species belonged to the order Clupeiformes, family Clupeidae and the common name was Machuelo. The potential resources were estimated at 3000 t and the product was processed as canned machuelo in oil or tomato. Samples of the product were available for examination by the Committee.

251. The delegation of Cuba indicated that it had not been able to fulfil the fourth condition of the procedure for the incorporation of additional species, that is:

> "(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. (para. 111 of ALINORM 79/18).

252. The delegation of Portugal, supported by France, the Federal Republic of Germany, the Netherlands, Spain and Switzerland considered that the request should be thoroughly discussed. The delegations reiterated that only products from Sardina pilchardus could be called Sardines.

253. The Committee agreed that it had to take action on (4) above and asked for countries to nominate participating laboratories.

254. The following laboratories were nominated:

Finland:	Finnish Customs Laboratory
Federal Republic of Germany:	Federal Research Centre for Fisheries, Hamburg
Portugal:	Portuguese Institute for Canned Fish
United Kingdom:	Torrey Research Station, Aberdeen

255. It was agreed that studies as outlined in para. 251 should be carried out by the laboratories in Finland, Federal Republic of Germany and U.K. as nominated in para. 254 and that the laboratory of the Federal Republic of Germany should coordinate comparative analyses.

The Committee noted that a large number of species had already been included as sardine types and therefore agreed that each of the participating laboratories should include in its comparative study only a selection of species, hoping that samples of all species would become available. It was also agreed that each laboratory should follow its own procedure having regard to the organoleptic parameters of species in consideration.

256. The results should be made available to the Norwegian Secretariat which would prepare a document to be examined by a Working Group at the next session of the Committee.

257. The delegation of Cuba agreed to provide the necessary samples of machuelo.

GUIDELINES FOR THE USE OF FISH PROTEIN PRODUCTS (FFP) IN PROCESSED MEAT AND POULTRY PRODUCTS

258. The Committee had available document CX/FFP 86/14 prepared and presented by the delegation of the U.S.A. which set out the background to activities within CCPMPP with regard to using non-meat protein in processed meat and poultry products.

259. The Committee noted that although fish products were addressed in the discussion paper CX/PMPP 84/12, it was obvious that the Codex Fish Committee was not contacted for its views and comments on the document. While Appendix I of CX/PMPP 84/12 lists some available non-meat protein products other than VPP, including two fish protein products (fish protein concentrate and fish protein isolate), the two most available and eligible fish protein products for potential use the CCPMPP decided for the moment to confine considerations to the use of milk protein products.

In addition to minced fish, there was another very important fish protein product that merited consideration for inclusion in guidelines for the use of non-meat proteins in processed meat and poultry products. This product was surimi.

260. The Committee also noted that research on the use of surimi in meat and poultry products was in progress by a number of meat processing plants, and that there was rapid technological development in the use of surimi as an ingredient in many kinds of foods as well as seafoods.

261. The Committee therefore decided that the attention of CCPMPP should be drawn to the potential of this product.

262. The Committee agreed to submit the following information to CCPMPP.

The product that is more likely to be used as an ingredient in other foods such as processed meat and poultry products is surimi. Surimi is an intermediate processed seafood product used in the formulation/fabrication of a variety of finished seafood products. It is normally traded in 10 kg frozen blocks which are individually wrapped in waxed cardboard boxes. Surimi is minced fish meat (usually pollock) which has been washed to remove fat and undesirable matter (such as blood, pigments, and odorous substances) and mixed with cryoprotectants (such as sugar and/or sorbitol) for a good frozen shelflife.

Research has been done in a number of countries where surimi is considered as a potential ingredient in processed meat products. Some food scientists working with surimi believed it was the greatest untapped potential as a protein ingredient in the processed meats industry. In the U.S.A. some research had been directed to analyzing the emulsifying, water-holding and foaming capacities of pollock surimi, applying these qualities to the needs of the meat industry, and found that frozen pollock surimi had considerable potential for incorporation into emulsified meat products. There also had been considerable work done on the application of dried surimi in meat products.

OTHER BUSINESS

Need for the establishment of limits of mercury in fish as proposed by the Codex Committee on Food Additives

263. The Committee noted the document which had been proposed on the above subject by the delegation of the U.S.A. (CX/FFP 86/2 Add. Conference Room Document).

264. At the 18th Session of the Codex Committee on Food Additives (CCFA), November 1985, a Working Group on Contaminants informed the CCFA about its discussion regarding limits for mercury and methylmercury in fish and shellfish. It noted that there were no limits for mercury in the Codex Standard on Fish and Fishery Products. (See ALINORM 87/12, paras. 225-229; and Appendix XII).

265. The Codex Committee on Fish and Fishery Products (CCFFP) noted that the CCFA had not sought its views on the question of "no limits for mercury in Codex Standards on fish and fishery products," and whether or not this matter had been considered by CCFFP. The CCFFP further noted that the CCFA planned to collect more data on mercury in fish through a circular letter, and to have the data evaluated by the Joint FAO/WHO Food Contamination Monitoring Programme. The CCFFP believed that there was a potential adverse impact of setting limits for mercury in fish and shellfish.

266. The question of "Need for Provisions for Metallic Contaminants in Various Fish Standards" was well described in CX/FFP 71/6. Further, the CCFFP examined this question at its 6th Session and the results of the deliberations at that time were provided in ALINORM 72/18, paras. 94-97.

267. Current data indicated that mercury residues in most fish were 80% or more methylmercury, the compound of toxicoligical concern. The species, blue marlin, appeared to be the only exception having methylmercury levels ranging from 12-75%. The source of methylmercury in fish and shellfish was mercury in the water resulting from leaching or volatilization from natural geological sources and industrial and agricultural activities. The mercury might be converted by microorganisms in bottom sediments to methylmercury which could be concentrated by the fish.

268. Many countries already had established guidelines or tolerances for methylmercury in fish and these established levels were frequently coupled with fisheries management and other control programmes that were currently being applied in a very effective manner that was meeting the needs of the fish industries as regards harvesting; and was adequately protecting the consumers.

269. Although fish was the primary source of methylmercury in the diet, the populations at risk varied considerably due in part to the dietary habits which differed in different regions of the world. Many countries had a mercury guideline in place that reflected the concerns for protecting the consumers of that specific region. These legal limits had been compiled by FAO/WHO in FAO Fisheries Circular No. 764 (1983). It was thought that a single global level for methylmercury in fish and shellfish was inappropriate and could lead to inadequate protection of consumers. If a single global

level were proposed that was too high, the consumers in heavy fish consuming regions of the world could be misled by relying on such a level and could be inadequately protected. On the other hand, if a single global level was proposed that was too low, the results could adversely affect the fishing industries and their economic well-being, by precluding the harvesting and marketing of certain species that could be marketed in many regions of the world.

270. It was further noted (ALINORM 87/12, para. 228) that a Working Group on Food Additives Intake might collect via a circular letter, intake levels on mercury analyzed. Collecting such data might not provide the appropriate information because methylmercury is the toxic form of the compound of concern in fish and due to the variation of inorganic mercury and organic methylmercury in species, data collected on the basis of total mercury would have little value and could be misleading.

271. The Committee agreed that the observations should be brought to the notice of CCFA and that if any limits were proposed then this Committee should be consulted. It was emphasized that methylmercury was the toxic element to be analyzed and not total mercury.

272. Several delegations informed the Committee of their activities with regard to the control of mercury in fish and that investigations were continuing to differentiate between the natural level of mercury and pollution levels.

Need for Harmonization of Fish Fillet Standards

273. Referring to the Harmonization of the defects tables for the above standards, the delegation of Norway proposed to examine whether one single standard could be developed based on the four existing standards for fish fillets. It was noted that in any case consequential amendments were to be made to the standards as a result of the defect tables. The proposal was supported by the delegations of Denmark, the Federal Republic of Germany and the Netherlands. The delegation of Norway kindly agreed to prepare a paper for the next session of the Committee.

Detection of Parasites by the Candling Method

274. The delegation of Iceland informed the Committee that the Icelandic Fisheries Laboratory had published a study on this subject (JAOAC Vol. 68 No. 3 1985).

The study determined optimum conditions for detecting parasites in skinned cod fillets by using candling tables under commercial conditions. The best balance of factors was sought for obtaining maximum lighting conditions, reducing operator fatigue, retaining natural fillet colour, and obtaining a high contrast between parasites and fish flesh. Based on the results obtained, a recommended procedure had been adopted by AOAC.

275. The Committee agreed that the paper should be annexed to the report (see Appendix XIII) so that Governments could test the method and report results to the next session of the Committee.

Review of Standard for Canned Sardines and Sardine-type Products

276. The delegation of Portugal made the following statement regarding the above Standard.

Declaration

277. Portugal considers it necessary to discuss a review of the Standard "Canned Sardine and Sardine-Type Products" - CODEX STAN 94-1981 and has decided to ask the Committee to consider this as an Agenda Item for the next session of this Committee.

278. The position decided about an inclusion of two species in the standard (see paras. 250-257) was in our view correct. One of these was not a species but was non-existent because two generic names have been mixed in the case of Sardine Sardinella.

279. Concerning Ophystonema oglinum, the submission for appraisal by several laboratories reporting to this Committee will allow the Committee to arrive at a satisfactory decision, possibly at the next session of the Committee.

280. Returning to Portugal's position, we consider it necessary to discuss a review of the Standard "Canned Sardine and Sardine-Type Products", Portugal thinks that as with any other standard, amendment could be initiated so that practical verification of the standard can be made to prevent fraud and unfair trade.

281. The amendment would certainly be in a spirit of correct technical integrity within the rules of the Codex Alimentarius.

FUTURE WORK

282. The Committee noted that it would be considering the following items at its next session:

- Draft Standards at Step 7 for:

  . Quick Frozen Blocks of Fish Fillet, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh
  . Quick Frozen Fish Sticks (Fish Fingers) and Fish Portions (Breaded or in Batter)
  . Dried Salted Fish (Klippfish)

- Draft Code of Practice at Step 7 for:

  . Cephalopods

- First Draft of Standard for Quick Frozen Squid
- Shark Fins
- Working Paper on Aquaculture
- Microbiological specifications for Frozen Cooked Crabmeat
- Final Quality of Salted Herring - Annex to Code of Practice for Salted Fish
- Working paper on Methods of Analysis and Sampling in Fish and Fishery Products Standards

- Inclusion of HACCP notes in Codes of Practice
- Working paper on evaluation of Ophystonema oglinum
- Working paper on amendments to Quick Frozen Fillet Standards
- Technological Justification on Food Additives
- Revision of Labelling Provisions in Standards for Fish and Fishery Products
- Discussion paper on added/foreign water
- Inspection Instructions for "Block Standard" and "Fish Sticks Standard"

283. A proposal by the Federal Republic of Germany to develop defect tables for brown fish species in block was agreed to in principle but was deferred to a later session in view of the full programme of the Committee.

Use of Surimi in other Food Products

284. The delegation of the United Kingdom pointed out that the Committee should consider the implications for the Committee of the use of surimi in fish products covered by existing and draft standards. In view of the expected changes in cost/technology of Surimi the Committee should keep itself informed of current developments.

285. The delegation of the U.S.A. referred to an International Symposium on engineered seafoods, including surimi, in Seattle, Washington. 60-65 scientific and technical papers had covered all aspects from scientific and potential resources for use to potential marketing implications. The delegation offered to prepare a summary paper of the proceedings of the international symposium as well as the overall status of surimi products for the next session.

Date and Place of Next Session

286. The next session would be held in about 2 years time in Norway. The exact date and place would be communicated after arrangements had been finalized by the Norwegian Government and the Codex Secretariat.

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PROPOSAL FOR HARMONISATION OF RECOMMENDED DEFECT TABLES IN STANDARDS FOR QUICK FROZEN FILLETS OF COD/HADDOCK, OCEAN PERCH, FLAT FISH AND HAKE

(At Step 8 of the Procedure)

Note: The total number of demerit points is to be calculated on a 1 kg basis and recorded to the nearest whole number.

DEFINITION OF DEFECTS	DEFECT DESCRIPTION	DEMERIT POINTS
A. FROZEN STATE		
1. Dehydration (freezerburn) (i) Deep dehydration - An excessive loss of moisture from the surface of the sample unit which shows clearly on the surface, penetrates below the surface, and cannot be easily removed by scraping.	Over 10% of total surface area or (a) $\leq$ 200g units $\geq$ 25cm^2 (b) 201-500g units $\geq$ 50cm^2 (c) 501-5000g units $\geq$ 150cm^2 (d) 5001-8000g units $\geq$ 300cm^2 (e) > 8000g units $\geq$ 500cm^2	Defective
	Over 1% up to and including 10% of the total surface area, or (a) $\leq$ 200g units 2.5-25cm^2 (b) 201-500g units 5.0-50cm^2 (c) 501-5000g units 15.0-150cm^2 (d) 5001-8000g units 30.0-300cm^2 (e) > 8000g units $\geq$ 500cm^2	4
(ii) Moderate dehydration A loss of moisture from the surface of the sample unit which is colour masking, but does not penetrate the surface and can be easily removed by scraping.	Over 10% of total surface area (a) $\leq$ 200g units $\geq$ 25cm^2 (b) 201-500g units $\geq$ 50cm^2 (c) 501-500g units $\geq$ 150cm^2 (d) 5001-8000g units $\geq$ 300cm^2 (e) < 8000g units $\geq$ 500cm^2	2
2. Ragged or torn fillets Longitudinal edges markedly and excessively irregular	Each instance	1

DEFINITION OF DEFECTS	DEFECT DESCRIPTION	DEMERIT POINTS
B. THAWED STATE		
3. Small pieces A fillet piece weighing less than 25g (not applicable to fillets cut from blocks)	If the sample unit came from a pack of 1 kg or greater, each occurrence over 1 piece.	4
	If the sample unit came from a pack less than 1 kg per pack, each occurrence over one piece per pack.	4
4. Skin and black membrane Skin Does not include sub-cutaneous layer (silver-lining). In flat fish white skin is not regarded as a defect. 1/	a) Skinless fillets (i) Each piece greater than 3 cm^2 up to and including 10 cm^2	4
	(ii) Over 10 cm^2 each additional complete area of 5 cm^2 or part thereof.	2
Black membrane or belly-lining Does not include white membrane.	b) Skin-on fillets (i) Each instance greater than 3 cm^2 up to and including 10 cm^2.	4
	(ii) Over 10 cm^2 each additional area of 5 cm^2 or part thereof.	2
5. Scales - attached to skin	a) Skin-on fillets - scaled (i) Each area of scale greater than 3 cm^2 up to and including 10 cm^2.	2*
	(ii) Each additional complete 5 cm^2 or part thereof.	2*
- readily noticeable loose scales	b) Skinless fillets (i) First 5 to 10 (in the case of hake fillets 10 to 20).	2
	(ii) If more than 10 (for hake 20) loose scales each additional complete unit of 5 (for hake 10).	2

* For ocean perch fillets only, 1 demerit point

1/ In Skinless Flat Fish, small pieces of white skin are not regarded as defects provided that the skin does not exceed more than 10% of the surface area of the fillets in the sample unit.

DEFINITION OF DEFECTS	DEFECT DESCRIPTION	DEMERIT POINTS
6. Colour Defects Blood clots (spots) Any mass or lump of clotted blood.	a) Each clot greater than 5 mm in diameter	2
Bruises Diffused blood causing distinct reddish, brownish or other off-colouration.	b) (i) Any aggregate area of discolouration or bruising exceeding 3 cm^2 up to and including 5 cm^2.	2
Discolouration Appears as significantly intense discolouration due to melanin deposits, bile stains, liver stains or other causes.	(ii) Each additional area of 5 cm^2 or part thereof.	2
7. Fins or part of fins Two or more bones connected by membrane, including internal or external bones, or both in a cluster.	Any instance where a bone in the fin exceeds 40 mm in length.	Defective
	Each separate instance up to and including 3 cm^2.	4
	Each additional 3 cm^2 or part thereof in the same cluster.	2
8. Bones Defect Bones A bone is regarded as a defect if its length is $\geq$ 10 mm or its diameter is $\geq$ 1 mm; a bone $\leq$ 5 mm in length is not to be considered as a defect if its diameter is not $\geq$ 2 mm. The foot of a bone (where it has been attached to the vertebra) shall be disregarded if its width is $\leq$ 2 mm or if it can be easily stripped off by a finger nail. Critical degree of bone defect Each defect bone whose maximum profile cannot be fitted into a rectangle, drawn on a flat solid surface, which has a length of 40.0 mm and a width of 10.0 mm.	a) Fillet with pin bone removed. (i) Each defect bone	2
	(ii) Each critical bone	Defective
	b) Fillet with pin bone in. (i) Each defect bone excluding pin bones.	2
	(ii) Each critical bone excluding pin bones.	8
9. Viscera Any portion of the internal organs.	Each instance	8

DEFINITION OF DEFECTS	DEFECT DESCRIPTION	DEMERIT POINTS
10. Parasites Parasites or parasitic infestation detected by the candling procedure or any other non-destructive physical means. Each parasite infestation may be recognised by its colour, its effect on softening the fish flesh or by other physical indications.	Each parasite with a capsular diameter greater than 3 mm or a parasite not encapsulated and greater than 10 mm in length.	4
	Each parasite with a capsular diameter smaller than 3 mm or a parasite not encapsulated and smaller than 10 mm in length.	2
	Each fillet affected by any significant parasitic infestation.	8
11. Foreign Matter (i) Any material not derived from fish or not permitted by the standard other than packaging.	Each instance	Defective
(ii) Packaging material.	Each instance	2
12. Odour (thawed state) Objectionable odour	Any odour which is distinctly objectionable.	Defective
13. Texture (thawed state) Any texture which is significantly different to the characteristics of the species.	Distinctly objectionable, e.g. the flesh is definitely spongy, rubbery, mushy, soft, gelatinous, tough or gritty.	Defective
C. COOKED STATE (Extra Sample Unit of 200 grammes)		
14. Odour and Flavour Objectionable odour or flavour.	Any odour or flavour which after cooking is distinctly objectionable.	Defective
15. Texture Any texture which is significantly different to the characteristics of the species.	Distinctly objectionable, e.g. the flesh is definitely spongy, rubbery mushy, soft, gelatinous, tough or gritty.	Defective
A sample unit is considered defective if the demerit points total more than:		20 for cod, haddock, hake 32 for ocean perch and flat fish