

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
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Agenda Item 6

CX/FFP 08/29/6-Add.1
ORIGINAL LANGUAGE ONLY

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

Twenty-ninth Session
Trondheim, Norway
18-23 February 2008

PROPOSED DRAFT CODE OF PRACTICE FOR FISH AND FISHERY PRODUCTS (OTHER SECTIONS) COMMENTS AT STEP 3 (European Community)

The European Community and its 27 Member States (ECMS) appreciate the opportunity to provide comments on the Proposed Draft Code of Practice for Fish and Fishery Products (section on smoked fish) and respectfully wish to submit the following comments:

Section 12 – Processing of smoked fish and section 2 Definitions of smoking

I GENERAL COMMENTS

As already stated at the last meeting (see CX/FFP 06/28/5), the ECMS consider that these sections cannot be discussed any further until sufficient progress has been made on the draft standard relating to "ready-to-eat smoked fish", since they must be consistent with that.

In particular, the question of the use of liquid smoke required clarification, either when used to regenerate smoke in a smoking chamber as in traditional smoking, or when used as a flavouring ingredient by spraying, soaking, brushing or adding it directly to the product. In the latter case, of course, the product could under no circumstances be described as "smoked fish". The decision whether or not to include the definitions of these processes will depend on the scope of the standard. The ECMS consider that the direct application of liquid soke¹ cannot be assimilated to smoking and should be regarded as a flavouring.

The ECMS also note that during work being carried out on the "contaminants" section of the Codex on the amendment of the code of practice to reduce PAH contamination of foods, some concepts could be used for the definition of the various types of smoking, their purpose, etc.

(CX/CF/07/1/16 ; paragraphs 20 to 32 in particular).

However, the following comments may already be considered at this stage.

Additions are shown in *underlined italics*

Deletions are shown in ~~strikeout characters~~

¹ *By spraying, sprinkling, soaking, injection, incorporation into the product, etc.*

II COMMENTS ON THE TEXT**2.8 SMOKED FISH**

Cold smoking means smoking at a temperature of the smoked product lower than the temperature where the proteins of the fish flesh show signs of heat coagulation denaturation;

Hot Smoking means smoking at a temperature of the smoked product until the proteins of the fish flesh are coagulated ~~is denatured~~ throughout;

Indirect Mechanical Smoking means a smoking process where the smoke is generated outside the smoking chamber and/or by artificial ventilation forced to flow around the fish;

Smoking using liquid smoke or "regenerated smoke": means processing of the foodstuff using smoke obtained from the regeneration and spraying of smoke condensate in a smoking unit, the duration and temperature being similar to those used for cold or hot smoking.

SECTION 12 – PROCESSING OF SMOKED FISH

Third paragraph: Modern ways of smoking and keeping the smoked products refrigerated however has changed the traditional barriers to growth of bacteria and substituted them in essence by refrigeration and/or vacuum packaging, resulting in an extended storage time.

Delete the fifth paragraph: [~~Whether the use of liquid smoke is a process under this code or it is to be seen as use of flavouring substances is to be discussed.~~]

See General Comments

Delete the sixth paragraph: [~~Nevertheless the potential hazards and potential defects for the different types of raw materials used for the production of smoked fish are known.~~]

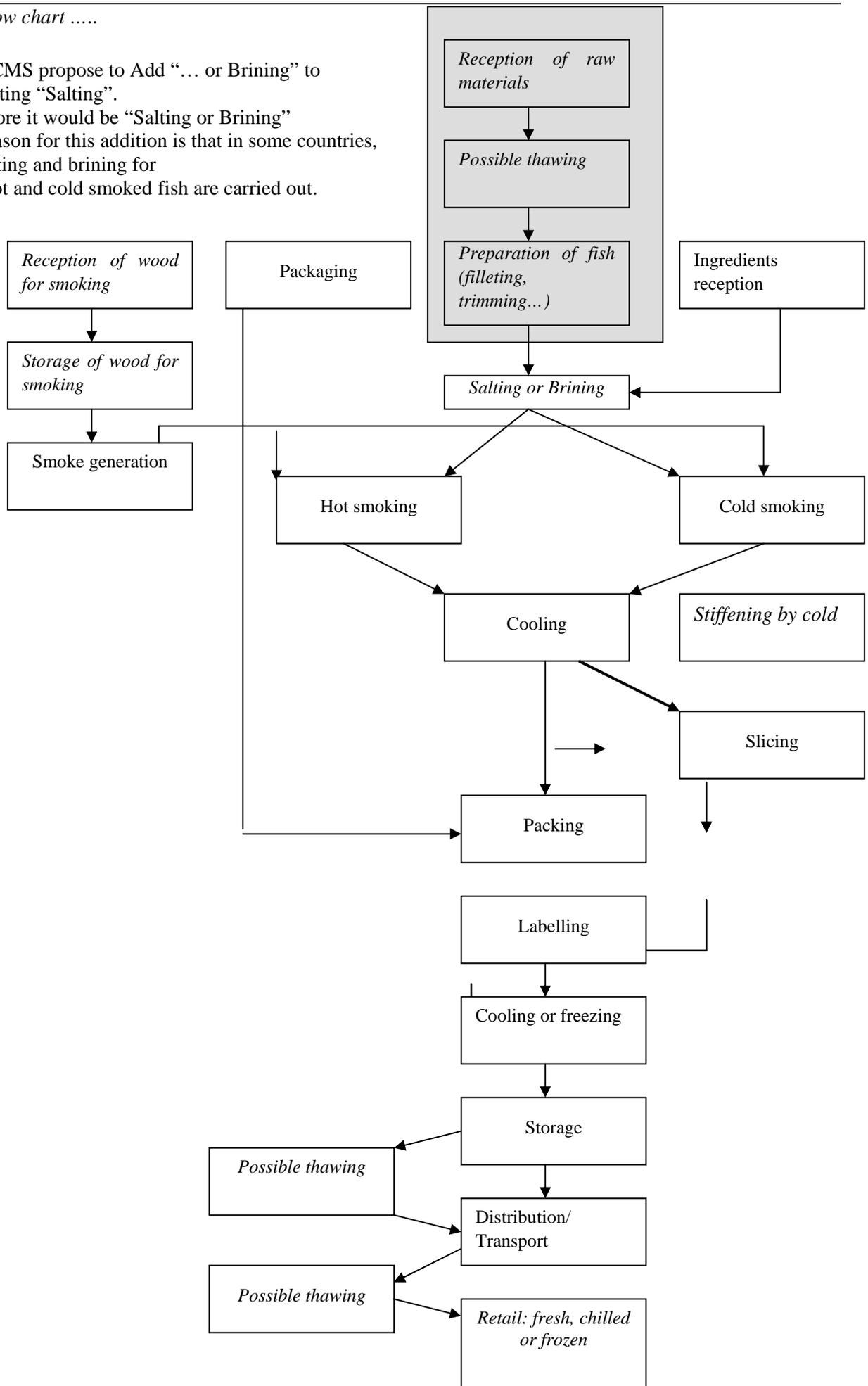
Ninth paragraph: If fresh fish of species likely to harbour viable [~~and hazardous~~] and pathogenic parasites are to be used as raw material for a smoked product and is not during later processing steps treated in a way that will kill parasites, the fresh fish should be frozen [for at least 24 hours at a core temperature of -20°C] as a step in the fish preparation. As an example this may be necessary when using wild salmon from certain waters as raw material for cold smoked salmon, if the smoked salmon is not frozen prior to sale.

Tenth paragraph: Cold smoked fish should meet the requirements set out in the Codex Standard for [Ready-to-eat] Smoked Fish¹.

¹ Codex Standard for Ready-to-eat Smoked Fish (being prepared)

This flow chart

The ECMS propose to Add "... or Brining" to box stating "Salting".
 Therefore it would be "Salting or Brining"
 The reason for this addition is that in some countries, dry salting and brining for both hot and cold smoked fish are carried out.



12.1 Example of a flow chart of a hot smoking and cold smoking preparation line, including possible slicing operation on the cold smoking line

12.1 ~~PRE~~-SALTING (PROCESSING STEP 1)

Technical Guidance:

First paragraph: Usually fish for hot smoking are ~~pre-dry~~ salted *or salted* by *immersing in brine just long enough for them to gain the taste required by consumers and to help reduce the water activity of the product.* ~~, i.e. 0-2 hours, by floating in medium strength salt brine.~~

Second paragraph: Usually fish for cold smoking are dry salted or salted by pickle injection of ~~a medium strength salt~~ brine *or salted using the brine immersion method* to gain *the taste required by consumers and to help reduce the water activity of the product.* The salted fish can then be left to *mature* for about 24 hours under refrigeration in order to equilibrate.

Third paragraph, third bullet: • for fish for cold smoking the salt content in the fish should be more than 3% salt in the water phase. *A salt content of 3% in the water phase and keeping the product at a temperature below 5°C makes it possible to avoid growth of Clostridium botulinum and the production of its toxin.*

Third paragraph, fourth bullet: the brine should be kept cooled and the temperature should be monitored, ~~in particular if the brine is recycled for pickle injection;~~

Third paragraph, fifth bullet: ~~if the brine is recycled, a decontamination step should be instated.~~ *The brine should not be re-used.*

Third paragraph, sixth bullet: • the flow of products should be *managed* ~~maintained~~ in such a way as to avoid undue accumulation.

Third paragraph, seventh bullet: • *Where the brine is added by pickle injection, the equipment must undergo regular cleaning and maintenance.*

12.2 SMOKING (PROCESSING STEPS 2 & 3)

Technical Guidance:

First paragraph: The *cold* smoking process is usually initiated by a drying phase. This phase should be kept short, as prolonged exposure to ambient temperature may lead to the *growth of undesirable microorganisms* and to formation of histamine in susceptible species.

Second paragraph: In the hot smoking process, the temperature in the centre of the product will normally reach [63°C][72°C] for about half an hour. Time and temperature has to be managed to ensure heat coagulation *of the proteins* of the flesh has occurred completely *at the level of* the backbone.

Third paragraph: In the cold smoking process the temperature of the products is kept below the coagulation temperature for the *proteins of the flesh* of the fish, usually under 30°C, but can vary between 20°C and 38°C.

Fourth paragraph: *To avoid cross contamination with wood dust and spores from moulds, the smoke should be generated in a separate room. Where smoke generators are part of units emitted from generators. However, where traditional kilns are used which generate smoke in the kiln, steps should be taken to control such cross contamination.*

(Drafting Note: In some countries traditional kilns where the smoke is produced directly beneath the fish and not in a separate room or chamber are still used)

Last paragraph, addition of sixth bullet: • *Ensure that the smoking chamber and the pipes between the smoke generator and the smoking unit are cleaned regularly to avoid accumulation of PAHs.*

12.3 SLICING OF COLD SMOKED PRODUCTS (PROCESSING STEPS 5 & 6)

Potential defects: ~~Unlikely~~ *decomposition*

Technical Guidance:

First paragraph: Most cold smoked fish products are sold as packages of sliced fillets of different sizes or as whole fillets. Before slicing, the smoked fillets may be frozen ~~to about 5 °C~~ to stabilise the fish flesh to be sliced.

Third paragraph: Special care should be taken to control the presence of *Listeria monocytogenes*. Avoid undue accumulation and growth of *Listeria monocytogenes* by keeping the *slicers* and the conveyer belts clean and avoid any possibilities of bacterial growth.

[NB: No change to EN version]

Third paragraph, first bullet: • maintain a managed flow of products to avoid undue accumulation of products along the processing line;

Third paragraph, second bullet: • keep the slicer and the conveyer belts clean by frequent and planned cleaning during the process. [NB: No change to EN version]

Third paragraph, addition of third bullet: • Following prolonged inactivity of the slicer, the appliance should be disinfected.

12.4 COOLING AND /OR FREEZING (PROCESSING STEPS 4 + 8)

Second paragraph, first bullet: cool hot smoked products adequately[, i.e. products should be cooled to below 10° C within 2 hours and to below ~~2~~4°C within 6 hours].

12.5 PACKING OF HOT AND COLD SMOKED PRODUCTS (PROCESSING STEP 7)

Technical Guidance:

First paragraph: Hot smoked fish and cold smoked fish are present on the market in many forms but are mostly vacuum packed or modified atmosphere packed (MAP) in boxes or ~~pre-packaged in~~ plastic bags suitable for contact with food.

~~**Delete the second paragraph:** Cold smoked fish are presented to the market mostly in pre-packaged evacuated plastic bags or sold as freshly cut slices directly to the consumer.~~

Third paragraph, second bullet: • maintain a managed flow of products to avoid undue accumulation of products along the processing line;

Third paragraph, addition of fourth, fifth and sixth bullets:

- The composition of the inert gas should be checked regularly;
- The seals of packages should be checked for integrity;
- As soon as the smoked fish is vacuum packed, it should be kept in a storage chamber and should not be left in the packing room.