1 October 2013
[18-13]

Approval Report – Proposal P1019

Carbon Monoxide as a Processing Aid for Fish

Food Standards Australia New Zealand (FSANZ) has assessed a proposal prepared by FSANZ to make clear that the *Australia New Zealand Food Standards Code* (the Code) does not permit the use of carbon monoxide in the processing of fish as a food to change or fix the colour of the flesh of fish.

On 17 December 2012, FSANZ sought submissions on a draft variation and published an associated report. FSANZ received 16 submissions.

FSANZ approved the draft variation on 19 September 2013. The COAG Legislative and Governance Forum on Food Regulation[1] (Forum) was notified of FSANZ's decision on 27 September 2013.

This Report is provided pursuant to paragraph 63(1)(b) of the *Food Standards Australia New Zealand Act 1991* (the FSANZ Act).

[1] Previously known as the Australia and New Zealand Food Regulation Ministerial Council

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1. Executive summary

The purpose of this Proposal is to make clear that Standard 1.3.3 of the A*ustralia New Zealand Food Standards Code* (the Code) does not permit carbon monoxide to be used to fix or alter the colour of the flesh of fish to be sold as food. This is because the use of carbon monoxide has an ongoing technological function in fish (i.e. colouring and/or colour fixing).

Agencies responsible for enforcing the Code have consistently regarded the treatment of fish with carbon monoxide gas to fix or alter the colour of fish flesh as being prohibited by the Code.

Carbon monoxide treatment of fish is of concern because of its potential to mislead consumers by hiding the age and condition of fish.

It has been reported that some processors are using carbon monoxide during fish processing.

For these reasons, regulators have recommended that the Code be amended to include an express prohibition on the use of carbon monoxide gas in the processing of fish to change or fix the colour of fish flesh.

FSANZ has considered whether non-regulatory measures could be used to address this issue through use of an editorial note in the Code or by additional advice to industry. It concluded that these would not be effective.

Accordingly, FSANZ has approved a variation to Standard 1.3.3 – Processing Aids. The variation clarifies that carbon monoxide must not be used in the processing of fish where its use results in a change to or fixes the colour of the flesh of the fish. The variation also clarifies that this prohibition does not extend to carbon monoxide that is naturally occurring or naturally present in smoke being used to process fish as a food.

2. Introduction

Proposal P1019 commenced in March 2012 and a Call for Submissions was notified in December 2012.

2.1 The Proposal

The purpose of this Proposal is to clarify the current permission in the Code for carbon monoxide to be used as a processing aid. That is, to make clear that the permission does not extend to carbon monoxide's use in the processing of fish to fix or alter the colour of fish flesh.

2.2 The current Standards

As explained below, Standard 1.3.3 permits carbon monoxide's general use as a processing aid. However, this permission does not extend to its use to treat fish during processing for the purpose of colour preservation or fixing. Instead, this use of carbon monoxide is regulated by Standard 1.3.1 (i.e. as a food additive).

2.2.1 Standard 1.3.3

Standard 1.3.3 permits the use of carbon monoxide as a processing aid 'in the course of manufacture of any food'. See clause 3 of that Standard and the listing in the table to that clause.

A substance used as a processing aid in accordance with Standard 1.3.3 is not required to be included in the list of ingredients.

A substance cannot be used as a processing aid for the purposes of Standard 1.3.3 if that substance performs a technological function in the final food. See the definition of the term 'processing aid' in clause 1 of that Standard.

The irreversible fixing or altering the colour of the flesh in fish flesh is a technological function.

As such, Standard 1.3.3 does not permit the use of carbon monoxide as a processing aid to fix or alter the colour of the flesh of the fish as a final food.

2.2.2 Standard 1.3.1

Standard 1.3.1 regulates food additives. The Standard provides that a substance that is a food additive cannot be added to food unless the substance is listed in that Standard.

A food additive is defined by the Code to include –

> a *substance not normally consumed as a food in itself and not normally used as an ingredient of food, but which is intentionally added to a food to achieve one or more of the technological functions specified in Schedule 5.*

Schedule 5 of Standard 1.3.1 specifies colouring (i.e. *adds or restores colour to foods*) and colour fixative (i.e. *stabilises, retains or intensifies an existing colour of a food*) as technological functions.

Unlike a processing aid, a food additive can perform a technological function in a final food.

There is no permission listed in Standard 1.3.1 for carbon monoxide to be used as a food additive.

As such, the Code does not currently permit the use of carbon monoxide as a food additive to fix or alter the colour of the flesh of the fish as a final food.

2.2.3 International standards

Codex Alimentarius does not list carbon monoxide as a food additive, and in the Codex Inventory of Processing Aids, carbon monoxide is only listed as minor component of a combustion product gas.

The use of carbon monoxide to treat fish is undertaken in some Asian countries.

The treatment of fish with carbon monoxide gas is not permitted in other countries/regions, such as USA (see Acheson, D (2007) for the USA position), Singapore, Canada, the European Union (EU) and Japan.

2.3 Reasons for preparing the Proposal

The Proposal was prepared following requests by regulators and some in industry for regulatory certainty. That is, to clarify the Code's existing prohibition on the use of the carbon monoxide treatment in order to fix or alter the colour of fish.

2.4 Procedure for assessment

The Proposal was assessed under the General Procedure.

3. Summary of the findings

3.1 Risk assessment

3.1.1 Use of carbon monoxide for colour preservation

The process of treating high value red-fleshed fish with carbon monoxide is well known. It has been practised for at least 10 years in some parts of the world[2]. In contrast to other gases used in fish and meat packaging (such as nitrogen), carbon monoxide is not inert nor are its effects reversible. Its use is of concern to some regulators in Australia and elsewhere due to its ability to hide fish age and potential food safety issues associated with poorly handled tuna (e.g. see Anderson and Wu (2005) and Agri-Food and Veterinary Authority of Singapore).

Carbon monoxide treatment of fish for colour preservation is used typically where the red colour is an important quality attribute for consumers. It is most commonly used for tuna, but other similar fish such as mahi-mahi are treated, and even tilapia[3].

Carbon monoxide treatment of fish results in the formation of carboxymyoglobin in fish flesh. It is the carboxymyoglobin that alters or fixes the colour of the fish flesh. Carboxymyoglobin (or more specifically the red colour that it imparts) is relatively stable during frozen storage and through bacterial spoilage. It can last beyond the actual shelf-life of the fish (Kristinsson et al 2006).

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[2] For example, see http://www.nytimes.com/2004/10/06/dining/06TUNA.html
[3] For example, see http://www.seafoodsource.com/newsarticledetail.aspx?id=4294991123).

As a change in colour is used by many consumers as a primary assessment of quality, carbon monoxide treatment therefore has the potential to make inferior quality fish appear aesthetically more pleasing to consumers (Pivarnik et al 2011) or to mask decomposition resulting in an increased risk of histamine fish poisoning. Ludlow et al (2004) reported that histamine can reach high levels in carbon monoxide treated tuna despite the colour of the fish remaining acceptable.

3.1.2 Lack of an express prohibition in the Code

As explained above, there is no permission for carbon monoxide's use in food processing for the purpose of altering or fixing the colour of fish. However, as also noted above, it is apparent that terminology used in Standards 1.3.1 and 1.3.3 may give rise to confusion. For this reason, regulators have called for clarification.

Evidence exists that fish is being supplied to consumers in Australia after being treated by carbon monoxide for the purpose of altering or fixing the colour of fish flesh, despite the current prohibition in the Code. This suggests that the relevant provisions of the Code, as currently framed, are ineffective.

3.1.3 Odourless smoke

When fish are smoked, including with odourless (also referred to as tasteless or filtered) smoke, this process also imparts a red colour to the fish as smoke naturally contains carbon monoxide.

Although outside the scope of the call for submissions, a number of submitters claimed that fish processed using odourless smoke had potential food safety risks and the potential to mislead consumers.

3.2 Risk management

3.2.1 Risk management of carbon monoxide-treated fish

The purpose of this Proposal is to consider whether the manner in which the Code's provisions or permissions relating to the use of carbon monoxide as a processing aid are currently framed pose a risk and, if so, how that risk might best be managed. The focus is on the adequacy or otherwise of the Code's current permissions and restrictions applying to food additives and processing aids.

The risk assessment confirms that there is a lack of clarity and specific risk management measures should be considered to address the associated risk.

3.2.2 Risk management of fish processed using odourless smoke

At present, smoking as a process is not prohibited by the Code. Food that is subjected to smoking as a process must meet certain requirements. For example, it must be described appropriately to indicate the true nature of the food as required by *Standard 1.2.2 – Food Identification*. This allows consumers to have the necessary information to make an informed decision.

In addition, FSANZ has concluded that there is no evidence for a specific food safety concern with this product. Fish and fish products, whether or not processed using tasteless smoke, must comply with the maximum level of histamine in Standard 1.4.1 in the Code.

Accordingly, FSANZ does not believe that additional risk management measures are required for this product.

3.2.3 Risk management options

The following risk management options were available:

(1) reject the draft variation to Standard 1.3.3 that was prepared for the purposes of the call for submissions;
(2) approve that draft variation; or
(3) approve an amended version of the draft variation.

After consideration of all the evidence, FSANZ considered that the appropriate risk management measure was to amend the Code to restate the current prohibition more clearly. That is, to state expressly that Standard 1.3.3 does not permit the use of carbon monoxide in the processing of fish where that use results in a change to or fixes the colour of the flesh of the fish.

FSANZ considered whether non-regulatory measures could be used to address this issue, such as an editorial note in the Code or additional advice to industry, and has concluded that these would not be effective. An editorial note does not have any regulatory status, and advice on this issue has been available to industry since at least 2005 (see section 3.1.1 in the Call for Submissions) but in itself has not been effective.

As explained in Section 4, FSANZ approved an amended version of the draft variation to Standard 1.3.3 that was prepared for the purposes of the call for submissions (ie, option 3 above).

3.2.4 Compliance and enforcement

It is possible to differentiate for compliance purposes between fish that has been treated with carbon monoxide from that which has not. Imports of fish into the European Union are routinely screened for treatment with carbon monoxide and the result used to determine import eligibility. The USA permits tuna that has been processed with ‘tasteless smoke’, which it has recognised as Generally Recognised as Safe (GRAS). The US Food and Drug Administration (FDA) has not published a GRAS approval for tuna treated with carbon monoxide gas. Checks are made by US authorities of imported product to assess compliance.

A laboratory in Australia has NATA approval of an analysis, based on that used in the EU, for assessing carbon monoxide in tuna products. FSANZ has been advised that the methodology could be extended to differentiate between the presence of carbon monoxide due to the process of smoking as opposed to the direct use or application of carbon monoxide as a gas.

3.2.5 Summary of submissions

Consultation is a key part of FSANZ’s standards development process. FSANZ acknowledges the time taken by individuals and organisations to make submissions.

Every submission on an application or proposal is reviewed by FSANZ staff, who examine the issues identified and prepare a response to those issues. While not all comments can be taken on board during the process and given effect in the outcome, they are valued and all contribute to the rigour of our assessment.

Some submitters were contacted during the preparation of this Report to ensure that their views were clear to FSANZ and fully considered.

A total of 16 submissions on the draft variation were received. These came from organisations in the seafood industry, food and seafood representative bodies, government regulators and a personal submission. In addition, five comments were received after the closing date, but have been considered as part of the final decision.

A range of views was expressed in submissions with a number being supportive of the proposed changes, while others raised issues of concern.

The issues raised in submissions are summarised in Table 1 below.

This Proposal is aimed at clarification of existing provisions and permissions. That is, to make clear that Standard 1.3.3 does not permit the treatment of fish with carbon monoxide for the purpose of colour preservation in the final food (see section 3.2.1).

Some submitters suggested that Standard 1.3.3, as currently drafted, did permit the treatment of fish with carbon monoxide for the purpose of colour preservation in the final food. This is not the case. Standard 1.3.3 does not permit this (see section 2.2 above), nor was this the intention when the Standard was established. That is, substances that perform a technological function – such as colour fixing - in the final food are excluded as processing aids**.** Other submitters agreed that the Standard should instead be amended to prevent any further argument that carbon monoxide can be used as a processing aid for the purpose of colour preservation in fish as a final food.

Some submitters argued that the Code should now permit the treatment of fish with carbon monoxide for the purpose of colour preservation in the final food. After careful consideration, FSANZ considers that insufficient evidence was provided to warrant such an amendment at this time, particularly in the context of this proposal. FSANZ notes that any person can make an application to amend the Code at any time, for example to permit the use of carbon monoxide as a food additive. Such an application would then undergo a mandatory safety assessment and public consultation process in accordance with the Act.

Opposing views were put by submitters to FSANZ as to whether fish treated with carbon monoxide could pose a food safety risk or could mislead consumers as to fish quality. Available scientific studies and overseas practice, on balance, supports the view that there is a potential risk.

None of the submitters provided specific costs if the variation were enacted.

A number of the supporters of the proposal were concerned that the drafting could have unintended consequences, and requested FSANZ address their concerns.

The other main issue raised by submitters, including by some who supported and some who opposed the proposal, was that the Proposal should be extended beyond clarification to also consider the need to regulate the process using ‘tasteless’ ‘odourless’ or ‘filtered’ smoke. Some submitters advocating for the latter wanted both to be permitted (with appropriate labelling), whereas others wanted both to be prohibited. Smoking as a method of food processing is not prohibited by the Code. Adequate risk management measures exist in the Code to address the potential for misleading consumers or managing safety (see section 3.2.2).

Table 1: Summary of issues raised in submissions

Issue	Raised by	FSANZ Response (including any amendments to drafting)
The proposed variation may not be specific enough to ensure that it only applies to the direct use of carbon monoxide and the presence of carbon monoxide in smoke ingredients is not affected.	Australian Food and Grocery Council (AFGC), Food and Beverage Importers Association (FBIA), New Zealand Ministry of Primary Industries (NZMPI), New Zealand Food and Grocery Council (NZFGC), Seafood NZ	Draft variation amended to make this clear.
The use of 'tasteless' smoke results in carbon monoxide contact with the fish. The scope of the proposal should therefore be extended to cover 'tasteless' smoke and regulate its use in the same way as carbon monoxide (i.e. allow both or not allow both).	Alan Snow Konsulting (on behalf of six seafood businesses), Eastern Tuna and Billfish Industry, New South Wales Food Authority (NSWFA), Seafood Importers Association of Australasia (SIAA), Victoria Health, Walker Seafoods	Refer to discussion above (section 3.2.5).
Significant evidence from tuna imported into Australia shows the treatment of fish with carbon monoxide is not a food safety risk.	Alan Snow Konsulting (on behalf of six seafood businesses), SIAA	Refer to discussion above (section 3.2.5).
Consumers do not just rely on the red colour of treated fish when assessing quality.	Alan Snow Konsulting (on behalf of six seafood businesses), SIAA	Refer to discussion above (section 3.2.5).
Laboratory analysis of fish for carbon monoxide does not differentiate between presence due to smoking as opposed to its presence through direct carbon monoxide treatment, and this could lead to difficulty in enforcement.	SIAA, NSWFA, NZFGC	At the time of the call for submissions, this issue had not been resolved i.e. laboratory analysis could only quantify the level of carbon monoxide in the fish. Subsequent advice to FSANZ is that it is possible for an Australian laboratory to differentiate between fish treated directly with carbon monoxide and fish processed using smoke.
Lack of clarity in the Code with respect to gaseous packaging agents used in modified atmosphere packaging in general. **NZMPI recommended that this issue should be addressed in a future proposal.**	AFGC, Alan Snow Konsulting (on behalf of six seafood businesses), NZMPI, SIAA	Noted, but not part of this Proposal. There is no evidence that this is a major issue requiring an immediate Code change.
Labelling of tasteless smoke treated product (and carbon monoxide–treated if it is permitted) needs more specific rules e.g. as required in USA.	Alan Snow Konsulting (on behalf of six seafood businesses), Eastern Tuna and Billfish Industry, SIAA	FSANZ's view is that the current requirement in the Code requiring that the name or description of a food must be sufficient to indicate its true nature is adequate (see section 3.2.2). If fish are believed to be not described appropriately, then the issue may be brought to the attention of regulators for appropriate action.

3.3 Risk communication

A basic communication strategy was applied to this Proposal.

The process by which FSANZ considers Standard matters is open, accountable, consultative and transparent. Public submissions were sought to obtain the views of interested parties on the issues raised by the Proposal and the impacts of regulatory options.

Submissions were invited via the FSANZ Notification Circular and email alert, a media release and through FSANZ's social media tools and Food Standards News.

Some targeted consultation was undertaken in developing this Proposal, specifically with some industry members and enforcement agencies.

4. Decision

FSANZ approved the draft variation, subject to amendment following the call for submissions.

The draft variation, as varied after submissions were received, is at Attachment A. The version of the draft variation on which submissions were sought is at Attachment C.

4.1 Reasons for decision

FSANZ decided to vary Standard 1.3.3 to include an express statement that the Standard does not permit the use of carbon monoxide in the processing of fish where its use results in a change to or fixes the colour of the flesh of the fish.

The approved draft variation differed from the version that was prepared for the purposes of the call for submissions. That earlier version was amended to simplify the drafting and improve the clarity of the amendments. It was also amended to remove any doubt that the variation does not prohibit the presence of carbon monoxide that is naturally occurring or naturally present in smoke used to process fish as a food.

FSANZ had regard to the following matters under section 59 of the FSANZ Act

- *whether costs that would arise from a food regulatory measure developed or varied as a result of the proposal outweigh the direct and indirect benefits to the community, Government or industry that would arise from the development or variation of the food regulatory measure*

  The Office of Best Practice Regulation (OBPR), in a letter to FSANZ dated 3 July 2012 (reference number 13209), confirmed that this Proposal did not require a Regulation Impact Statement for OBPR purposes. This was on the basis that the proposal is a clarification of existing requirements and is machinery in nature.

  However, FSANZ performed a limited impact analysis below and the conclusions are as follows.

  As noted above, regulators are calling for regulatory certainty and for amendment of Standard 1.3.3 to make clear that it does not permit the use of carbon monoxide to alter or fix the colour of fish flesh. There may be additional cost to government or regulators arising from the variation due to the need to conduct analyses to differentiate between smoked and carbon monoxide treated fish.

Advice to FSANZ is that only a very small number of fish processors in Australia use carbon monoxide to treat fish. Some imported fish, particularly tuna, is subjected to this process. In the Call for Submissions, the value of carbon monoxide treated tuna imported into Australia was estimated at around $A12 million per annum. No additional information was provided by submitters.

FSANZ is unaware of carbon monoxide treated fish being produced in or imported into New Zealand. This was not raised as an issue in submissions.

Importers of fish treated with carbon monoxide remain able to source and sell fish that has been processed in accordance with the Code. The Call for Submissions stated that the additional cost involved in purchasing fish that has not been treated with carbon monoxide gas was estimated at around 10 per cent, or about a million dollars per annum, and that these costs arise from amending procedures to comply with current regulatory requirements. No further cost information was provided by submitters.

Those trading in fish not treated with carbon monoxide, including Australian sourced product, will benefit from a 'level playing field'.

Regulatory certainty will benefit consumers given the above risks relating to the age and condition of fish associated with use of carbon monoxide for colour preservation in fish as a final food. At the same time, consumers may face higher prices as fish suppliers pass on any increased cost (see above).

The cost to industry and any associated costs passed onto consumers will be ameliorated by the fact that the amendment will take effect 6 months after gazettal.

- *whether other measures (whether available to FSANZ or not) would be more cost-effective than a food regulatory measure developed or varied as a result of the Proposal*

  There are no other measures that would be more cost effective to achieve the same outcome than the variation to Standard 1.3.3. FSANZ considered the option of non-regulatory measures, such as through use of an editorial note in the Code or by additional advice to industry. These were not considered cost effective (refer to section 3.2.3).

- *any relevant New Zealand standards*

  There are no relevant New Zealand only standards as Standards 1.3.1 and 1.3.3 apply to New Zealand.

- *any other relevant matters*

  No other relevant matters were identified.

4.2 Addressing FSANZ's objectives for standards-setting

FSANZ has considered the three objectives in subsection 18(1) of the FSANZ Act during the assessment of this Proposal as follows.

4.1.1 Protection of public health and safety

This variation clarifies that the permission given for carbon monoxide's use as a processing aid for 'any food' does not permit its use to treat fish during processing for the purpose of colour preservation or fixing. Rather, this use of carbon monoxide is regulated by Standard 1.3.1 (i.e. as a food additive). To protect public health and safety, all food additives must be approved by FSANZ and listed in the Code. There is no current permission listed in Standard 1.3.3 for the use of carbon monoxide as a food additive for fish (see section 3.2.5).

Some submitters raised this issue with respect to fish processed using odourless smoke, but FSANZ's view is that no further risk management is required for this product (see section 3.2.2).

4.2.2 Provision of adequate information to enable consumers to make informed choices

Advice from regulators and members of the food industry is that the carbon monoxide treated fish, with its bright red colour, makes it difficult for consumers to judge the quality of the fish they are purchasing.

As mentioned above, this variation will clarify that the use of carbon monoxide to treat fish during processing, resulting in a red colour (which would not require labelling if the use met the definition of a processing aid), is not permitted.

The variation reinforces that this use would fall within the definition in Standard 1.3.3 of a food additive. All food additives must be approved by FSANZ and listed in the Code, and are covered by labelling provisions in the Code. There is no current permission for the use of carbon monoxide as a food additive for fish (see section 3.2.5).

Some submitters raised this issue with respect to fish processed using odourless smoke, but FSANZ's view is that no further risk management is required for this product (see section 3.2.2).

4.2.3 Prevention of misleading or deceptive conduct

The purpose of the carbon monoxide treatment is to make certain fish more attractive by maintaining a bright red colour, even if it is no longer fresh. Carbon monoxide treatment of fish in processing to fix or alter colour has the potential to mislead customers regarding the quality or age of the fish (refer sections 3.1.1 and 3.2.5).

Some submitters requested that specific labelling requirements be developed for fish processed with processed smoke. FSANZ's view is that the current labelling requirements of Standard 1.2.2 are adequate (refer sections 3.2.2 and 3.2.5).

4.2.4 Subsection 18(2) considerations

FSANZ has also had regard to the objectives set out in subsection 18(2):

- the need for standards to be based on risk analysis using the best available scientific evidence

  FSANZ has had regard to the best available scientific evidence with respect to the action of carbon monoxide in fish (refer to section 3.1.1.)

- the promotion of consistency between domestic and international food standards

  There is no single international food standard in this area. However, a number of countries/regions (e.g. Japan, USA, European Union) do not permit the treatment of tuna with carbon monoxide. Nor is this use permitted in Codex standards (refer to section 2.2.3 and section 3.1.4 in the Call for Submissions).

- the desirability of an efficient and internationally competitive food industry

  This is addressed in the cost-benefit analysis, section 4.1. A number of Australian industry submitters claimed that sales of carbon monoxide-treated fish has materially impacted on their competitiveness.

- the promotion of fair trading in food

  This is addressed in the cost-benefit analysis, section 4.1.

- any written policy guidelines formulated by the Ministerial Council[4].

  There are no relevant policy guidelines for this proposal

4.3 Implementation

The variations commence six months after the date of gazettal.

5. References

Acheson, D (2007), Statement on FDA Import Protection Plan http://www.fda.gov/NewsEvents/Testimony/ucm109636.htm

Agri-Food and Veterinary Authority of Singapore, http://www.ava.gov.sg/NR/rdonlyres/491431C1-248F-4BE3-BA78-07AA5D32163D/13369/CarbonMonoxideTreatedTuna991.pdf).

Anderson C. R. and Wen-Hsin Wu, Analysis of Carbon Monoxide in Commercially Treated Tuna (Thunnus spp.) and Mahi-Mahi (Coryphaena hippurus) by Gas Chromatography/Mass Spectrometry. . J. Agric. Food Chem., 2005, 53 (18), pp 7019–7023

Kristinsson HG, Balaban MO & Otwell WS (2006) Microbial and quality consequences of aquatic foods treated with carbon monoxide and filtered wood smoke. In: Modified atmospheric processing and packaging of fish: Filtered smokes, carbon monoxide and reduced oxygen packaging. Blackwell publishing.

Ludlow, N, and Kristinsson, H.G., Balaban, M.O. and Welt, B.A. (2004). Effect of different carbon monoxide and filtered smoke treatments on the quality and safety of yellowfin tuna (Tunnus albacares) muscle. Proceedings from the 2004 Institute of Food Technology Annual Meeting. http://ift.confex.com/ift/2004/techprogram/paper_24784.htm .

Pivarnik LF, Faustman C, Rossi S, Suman SP, Palmer C, Richard NL, Ellis PC & DiLiberti M (2011) Quality Assessment of Filtered Smoked Yellowfin Tuna (Thunnus albacares) Steaks. Journal of Food Science 76(6): S369-S379

Attachments

A. Approved variation to the *Australia New Zealand Food Standards Code*
B. Explanatory Statement
C. Draft variation on which submissions were called

[4] Now known as the COAG Legislative and Governance Forum on Food Regulation

Attachment A – Approved variation to the *Australia New Zealand Food Standards Code*

Food Standards (Proposal P1019 – Carbon Monoxide as a Processing Aid for Fish) Variation

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The Board of Food Standards Australia New Zealand gives notice of the making of this variation under section 92 of the *Food Standards Australia New Zealand Act 1991*. The Standard commences on the date specified in clause 3 of this variation.

Dated [To be completed by Standards Management Officer]

Standards Management Officer
Delegate of the Board of Food Standards Australia New Zealand

Note:

This variation will be published in the Commonwealth of Australia Gazette No. FSC XX on XX Month 20XX. This means that this date is the gazettal date for the purposes of clause 3 of the variation.

1 Name

This instrument is the *Food Standards (Proposal P1019 – Carbon Monoxide as a Processing Aid for Fish) Variation*.

2 Variation to Standards in the *Australia New Zealand Food Standards Code*

The Schedule varies a Standard in the *Australia New Zealand Food Standards Code*.

3 Commencement

These variations commence six months after the date of gazettal.

SCHEDULE

[1] Standard 1.3.3 is varied by

[1.1] omitting from clause 3 the words “The following” and substituting the words “Subject to clause 3A, the following”

[1.2] inserting after clause 3

“3A Restriction on the use of carbon monoxide in the processing of fish

(1) Carbon monoxide must not be used in the processing of fish as a food where its use results in a change to or fixes the colour of the flesh of the fish.

(2) To avoid doubt, subclause (1) does not apply to carbon monoxide that is naturally present or naturally occurring in smoke used in the processing of fish as food.

(3) Fish that has been treated with carbon monoxide prior to the commencement of Item 1.2 of the Schedule to the Food Standards (Proposal P1019 – Carbon Monoxide as a Processing Aid for Fish) Variation shall not be taken to comply with subclause 3A(1) by virtue of subclause 1(2) of Standard 1.1.1.”

[1.3] updating the Table of Provisions to reflect these variations.

Attachment B – Explanatory Statement

1. Authority

Section 13 of the *Food Standards Australia New Zealand Act 1991* (the FSANZ Act) provides that the functions of Food Standards Australia New Zealand (the Authority) include the development of standards and variations of standards for inclusion in the *Australia New Zealand Food Standards Code* (the Code).

Division 2 of Part 3 of the FSANZ Act specifies that the Authority may prepare a proposal for the development or variation of food regulatory measures, including standards. This Division also stipulates the procedure for considering a proposal for the development or variation of food regulatory measures.

FSANZ prepared Proposal P1019 - Carbon Monoxide as a Processing Aid for Fish to ensure that carbon monoxide is not permitted to be used as a processing aid for fish. The Authority considered the Proposal in accordance with Division 2 of Part 3 and has approved a draft Standard.

Following consideration by the COAG Legislative and Governance Forum on Food Regulation[5], section 92 of the FSANZ Act stipulates that the Authority must publish a notice about the standard or draft variation of a standard.

Section 94 of the FSANZ Act specifies that a standard, or a variation of a standard, in relation to which a notice is published under section 92 is a legislative instrument, but is not subject to parliamentary disallowance or sunsetting under the *Legislative Instruments Act 2003*.

2. Purpose

The Authority has approved a variation to the Code to clarify that Standard 1.3.3 does not permit the use of carbon monoxide as a processing aid for fish.

Clause 3 of Standard 1.3.3 provides that carbon monoxide may be used as a processing aid in any foods. However, this permission does not apply where carbon monoxide performs a technological function in the final food. That is, where it results in colouring or colour fixing in the final food. To avoid confusion, the Standard is varied to make it clear that carbon monoxide may not be used in the processing of fish of food to fix or alter the colour of the flesh of the fish. This reflects the current prohibition on this use of carbon monoxide set by Standard 1.3.1.

3. Documents incorporated by reference

The variations to food regulatory measures do not incorporate any documents by reference.

4. Consultation

In accordance with the procedure in Division 2 of Part 3 of the FSANZ Act, the Authority's consideration of Proposal P1019 has included one round of public consultation following an assessment and the preparation of a draft Standard and associated report. Submissions were called for on 17 December 2012 for an eight-week consultation period.

[5] Previously known as the Australia and New Zealand Food Regulation Ministerial Council

A Regulatory Impact Statement (RIS) was not required because the proposed variations to Standard 1.3.3 are intended to clarify existing requirements.

5. Statement of compatibility with human rights

This instrument is exempt from the requirements for a statement of compatibility with human rights as it is a non-disallowable instrument under section 94 of the FSANZ Act.

6. Variation

Item [1.1] amends clause 3 to reflect the insertion of clause 3A into the Standard.

Item [1.2] inserts clause 3A into the Standard. Subclause 3A(1) provides that carbon monoxide must not be used in the processing of fish as a food where its use results in a change to or fixes the colour of the flesh of the fish. Subclause 3A(2) clarifies that the restriction imposed by subclause 3A(1) on the use of carbon dioxide during the processing of fish does not apply to the process of smoking. This recognises that carbon monoxide is a natural component of smoke. Subclause 3A(3) provides that the stock in trade exemption provided by subclause 1(2) of Standard 1.1.1 does not apply in relation to the variation made by this Item.

Item [1.3] updates the Standard's Table of Provisions to reflect the insertion of new clause 3A.

Attachment C – Draft variation to the *Australia New Zealand Food Standards Code* on which submissions were called

1 Name

This instrument is the *Food Standards (Proposal P1019 – Carbon Monoxide as a Processing Aid for Fish) Variation*.

2 Variation to Standards in the *Australia New Zealand Food Standards Code*

The Schedule varies the Standards in the *Australia New Zealand Food Standards Code*.

3 Commencement

The variation commences 6 months after the date of gazettal, except for Item 1.2 which commences 18 months after the date of gazettal.

SCHEDULE

[1] Standard 1.3.3 is varied by

[1.1] omitting clause 3 and substituting

"**3 Generally permitted processing aids**

(1) The following processing aids may be used in the course of manufacture of any food at a level necessary to achieve a function in the processing of that food –

(a) foods, including water; and
(b) food additives listed in Schedule 2 of Standard 1.3.1; and
(c) a processing aid specified in the Table to this clause.

(2) Carbon monoxide may be used as a processing aid in the course of manufacture of any food, except for fish, at a level necessary to achieve a function in the processing of that food.

(3) Fish that has been treated with carbon monoxide prior to the commencement of Item 1 of the Schedule to the *Food Standards (Proposal P1019 – Carbon Monoxide as a Processing Aid for Fish) Variation* shall not be taken to comply with subclause 3(2) by virtue of subclause 1(2) of Standard 1.1.1.

Table to clause 3

Activated carbon
Ammonia
Ammonium hydroxide
Argon
Bone phosphate
Diatomaceous earth
Ethoxylated fatty alcohols
Ethyl alcohol
Fatty acid polyalkylene glycol ester
Furcellaran
Hydrogenated glucose syrups
Isopropyl alcohol
Magnesium hydroxide
Oleic acid
Oleyl oleate
Oxygen
Perlite
Phospholipids

Phosphoric acid
Polyethylene glycols
Polyglycerol esters of fatty acids
Polyglycerol esters of interesterified ricinoleic acid
Polyoxyethylene 40 stearate
Potassium hydroxide
Propylene glycol alginate
Silica or silicates
Sodium hydroxide
Sodium lauryl sulphate
Sulphuric acid
Tannic acid

”

[1.2] omitting subclause 3(3)