Recent Codex and SPS Activities – SafeFish Report

The adjournment of the Codex Committee on Fish and Fishery Products (CCFFP) in June 2016 has resulted in any Codex activities (review/development of standards, guidelines, or Code of Practice) of relevance to the seafood industry undertaken through the General Subject Committees.

These committees manage a wide variety of activities and whilst not all of these activities are relevant to the seafood sector, resources are required to identify the relevant items. An overview of the number of correspondence items and those of relevance to the seafood industry are shown in Figure 1.

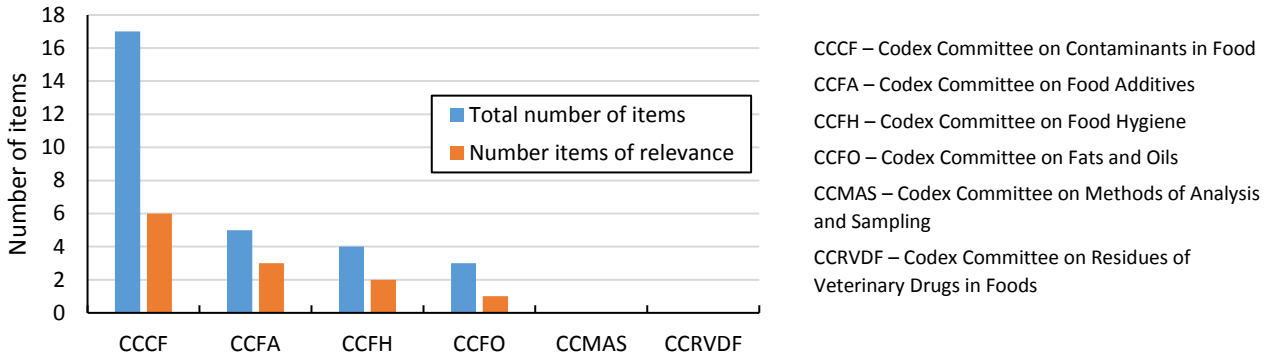

Figure 1 Codex correspondence: 01 Jan 2017 - 06 July 2017

The pertinent Codex activities that relate to seafood include:

- Methylmercury – Proposal under consideration to significantly reduce maximum level in fish
- Histamine – New histamine control guidance and consideration of reduced maximum level
- Ciguatoxins – New standard under consideration
- Alignment of Food Additives – Notification of changes to a variety of seafood products
- Non Dioxin-like PCBs – Revision to cover non dioxin-like PCBs in food and feed
- Fish Oils – New standard for fish oil, maximum level for arsenic and lead under consideration
- Review of maximum level (ML) for lead in fish

Sanitary and Phytosanitary (SPS) Notifications from trading countries have included:

- Changes to Hong Kong maximum level (ML)s for metals in fish, crustacean, molluscs and other aquatic animals
- Aqui-S (Isoeugenol) – Korea SPS Notification

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Methylmercury – Proposal under consideration to significantly reduce maximum level (ML) in fish

The CCCF have been discussing methylmercury limits since 1992. In 2013 CCCF agreed that consumer advice should not be developed at the international level and that such guidance was more appropriate at the national level.

There is a growing consensus from the international community to convert these Guideline Levels into a Maximum Limits. In 2016 CCCF agreed to establish a ML for tuna, but work needed to be undertaken to determine whether it was possible to establish a single ML for tuna or whether different MLs should be set for different species of tuna, and whether it was possible and appropriate to set MLs for canned tuna. There is also some interest in establishing MLs for other fish species which contain high mercury content.

Discussions have considered using the ALARA (as low as reasonably achievable) approach or health protection. Codex currently has a Guideline Level for methylmercury of 0.5mg/kg for non-predatory fish and 1.0 mg/kg for predatory or piscivorous fish species. **One scenario identified for health protection would be to establish a single ML of 0.3 mg/kg for Albacore tuna and other (than Atlantic and Southern) Bluefin tuna, Bigeye tuna, Alfonsino, Dogfish, Marlin, Shark, and Swordfish, reducing the ML significantly**. SafeFish has informed Codex Australia that a ML of 0.3 mg/kg would be impractical as it would result in high rejection rates and severe economic impacts on trade, and suggested alternative control options.

Alternatively, MLs based on the ALARM approach could result in health issues for certain populations, especially those where seafood consumption rates of higher methylmercury species are high.

Interested parties should register with SafeFish to be involved in future upcoming discussions. Stakeholders to comment on impact of new levels, and to provide any data on existing levels.

Histamine – New histamine control guidance and consideration of reduced maximum level (ML)

Scombrotoxin fish poisoning (SFP) is a common cause of fish poisoning that occurs in humans. Histamine formation can be effectively controlled by using good manufacturing practices to maintain hygienic quality of fish, and by using HACCP systems to control fish time and temperature exposure.

CCFH have prepared a draft revision of the *Code of Practice for Fish and Fishery Products* to include a new section to help prevent SFP. This will identify what actions should be undertaken, and **includes the need to measure temperature and maintain the history of temperature and time records throughout the supply chain**. These draft revisions will be applicable to marine finfish and their products that have the potential to develop hazardous levels of histamine and includes tuna, mackerel, anchovies, sardines, kingfish, Australian salmon, Mahi Mahi and Escolar.

The current Codex health-based safety limit for histamine in fish from *Clupeidae*, *Scombridae*, *Scombresocidae*, *Pomatomidae* and *Coryphaenedae* families is 200 mg/kg. **Discussion are also occurring on potentially reducing this level and revision of sampling plans.**

Interested parties to register with SafeFish for future upcoming discussions.

Ciguatoxins – New standard under consideration

CCCF are considering making a request to FAO/WHO for scientific advice **to support either the future establishment of ML for C-CTX-1 and P-CTX-1 and/or the development of risk management guidelines.**

SafeFish requested comments from a number of industry and scientific contacts and supplied a response to Codex Australia which included:

- Ciguatera is the cause of the highest number of outbreaks (not cases) associated with Australian seafood and effects both commercial and recreational catch and domestic and export products.
- There are currently no regulatory limits in Australia for cigutoxins in seafood, though the Sydney Fish Market have established their own management guidelines. Additional guidelines to minimise the risk of ciguatera poisoning is also available from the Queensland Government Department of Health.
- The development of ML for C-CTX-1 and P-CTX-1 is premature
- Development of risk management guidelines should be backed by scientific evidence.
- Acknowledgment that there are other congeners and analysis and monitoring of cigutoxins will be dependent on the availability of robust and affordable analytical techniques and reference materials.

Interested parties should register with SafeFish to be involved in future upcoming discussions.

Alignment of Food Additives – Notification of changes to a variety of seafood products

Food additives in 10 frozen seafood commodity standards and for canned shrimp and prawns are to be aligned to the *General Standard for Food Additives* (CODEX STAN 192-1995). The commodity standards impacted are:

- *Quick Frozen Fish Sticks (Fish Fingers), Fish portions and Fish Fillets-Breaded and in Batter* (CODEX STAN 166-1989);
- *Standards for Quick Frozen Finfish, Uneviscerated and Eviscerated* (CODEX STAN 36-1981);
- *Quick Frozen Shrimps or Prawns* (CODEX STAN 92-1981);
- *Quick Frozen Lobsters* (CODEX STAN 95-1981);
- *Quick Frozen Blocks of Fish Fillet, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh* (CODEX STAN 165-1989);
- *Quick Frozen Fish Fillets* (CODEX STAN 190-1995);
- *Quick Frozen Raw Squid* (CODEX STAN 191-1995);
- *Live and Raw Bivalve Molluscs* (CODEX STAN 292-2008);
- *Live Abalone and for Raw Fresh Chilled or Frozen Abalone for Direct Consumption or for Further Processing* (CODEX STAN 312-2014);
- *Fresh and Quick Frozen Raw Scallop Products* (CODEX STAN 315-2014);
- *Standard for Canned Shrimps or prawns* (CODEX STAN 37-1991).

The list of approved food additives and maximum permitted level within the individual commodity standards (above) will be replaced with reference to **permissions listed within the *General Standard for Food Additives* (CODEX STAN 192-1995).**

The alignment will mean that any additive that is not permitted in the GSFA will also not be allowed to be used in the relevant commodity standards. **Potassium ascorbate will no longer be permitted in the following standards:**

- ***Standards for Quick Frozen Finfish, Uneviscerated and Eviscerated*** (CODEX STAN 36-1981)
- ***Quick Frozen Lobsters*** (CODEX STAN 95-1981)
- ***Quick Frozen Blocks of Fish Fillet, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh*** (CODEX STAN 165-1989)

The alignment will result in permission for a **broader range of phosphates, sulfites and ascorbyl esters in some of the commodity standards.**

Non Dioxin-like PCBs – Revision to cover non dioxin-like PCBs in food and feed

In 2015 the Joint FAO/WHO Expert Committee on Food Additives (JECFA) assessed the toxicity of non dioxin-like PCBs and concluded that based on the available data non dioxin-like PCBs are unlikely to be a health concern for adults and children, but for breastfed infants the safety margin would be expected to be lower. It remains important that efforts are undertaken to reduce or prevent human exposure to non dioxin-like-PCBs.

In 2015 CCCF agreed to review the *Code of Practice for the Prevention and Reduction of Dioxin and Dioxin-like PCB Contamination in Food and Feeds* (CAC/RCP 62-2006) to evaluate if non dioxin-like PCBs could be included.

CCCF have recommended that non dioxin-like PBCs be include in the Code of Practice. The practices to reduce the presence of dioxin-like PCBs are also applicable to non dioxin-like PCBs, i.e. **there should be no significant change to the current Code.**

Interested parties to register with SafeFish for future upcoming discussions.

Fish Oils – New standard for fish oil, maximum level (ML) for arsenic and lead under consideration

CCFO have developed a *draft Standard for Fish Oils* and in March 2017 agreed to forward the *draft Standard for Fish Oils* to CAC40 for adoption at Step 8. The draft Standard will apply to fish oils that are presented in a state for human consumption. Aspects of the standard will apply to crude fish oils.

CCFO have requested CCCF to **consider to develop maximum levels for arsenic and lead in fish oils** for inclusion into the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

Interested parties should register with SafeFish to be involved in future upcoming discussions.

Review of maximum level (ML) for lead in fish

The Joint FAO/WHO Expert Committee on Food Additives (JECFA) has identified that there is no safe level of lead and consequently there is a need to maintain the levels of lead in food at the lowest achievable levels, in particular to protect vulnerable populations groups.

The 10th session of CCCF (April 2016) agreed to establish an eWG to review the ML for lead in fish in the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995). The eWG extracted data from the GEMS/Food database for samples collected and/or analysed between 1995 and 2016. The eWG noted that:

- 97% of samples met the current ML of 0.3 mg/kg
- 95% of samples met a hypothetical ML of 0.2 mg/kg
- 89% of samples met a hypothetical ML of 0.1 mg/kg.

The eWG recommended that the current ML for lead in fish of 0.3 mg/kg be maintained. This compares to the current domestic level in the FSANZ Food Standards Code of 0.5 mg/kg.

SafeFish noted that there was no lead concentration data from Australian seafood in the extracted dataset.

Interested parties should register with SafeFish to be involved in future upcoming discussions.

Changes to Hong Kong maximum level (ML)s for metals in fish, crustacean, molluscs and other aquatic animals

In June 2017 Hong Kong issued a SPS notification that is proposing to establish/modify MLs for metallic contamination in different food/food groups. **This will impact fish, crustaceans, molluscs and other aquatic animals.** The proposed amendments plan to adopt Codex MLs unless otherwise justified. A comparison between the proposed MLs in Hong Kong and those of FSANZ and Codex are below. The proposed standards are listed below. **Some of the proposed amendments will be stricter than Australian domestic (FSANZ) and Codex MLs.**

Interested parties should register with SafeFish to be involved in future upcoming discussions. Stakeholders to comment on impact of new levels, and to provide any data on existing levels.

Antimony (Sb)

Food Item	Hong Kong		FSANZ (Portion as ordinarily consumed)	Codex
	Proposed ML (Edible portion - unless stated otherwise)	Existing ML		
Fish	1.0 mg/kg Whole commodity after removing the digestive tract	1.0 mg/kg	-	-
Crabs, prawns and shrimps	1.0 mg/kg Edible portion of crab, including the liver and gonads or parts thereof after removal of shell	1.0 mg/kg	-	-
Oysters	1.0 mg/kg Whole commodity after removal of shell	1.0 mg/kg	-	-

Arsenic (As) – Inorganic

Food Item	Hong Kong		FSANZ (Portion as ordinarily consumed)	Codex
	Proposed ML (Edible portion - unless stated otherwise)	**Existing ML**		
Aquatic animals	0.5 mg/kg Not applicable to fish and intestine of sea cucumber; Edible portion of crab, including the liver and gonads or parts thereof after removal of shell; Cephalpods: Whole commodity after removal of shell and viscera; Scallops: Whole commodity after removal of shell and viscera	7.9 mg/kg (or 10 mg/kg as As_2O_3)	2.0 mg/kg (Crustacea) 1.0 mg/kg (Molluscs)	-
Fish	0.1 mg/kg Whole commodity after removing the digestive tract	4.8 mg/kg (or 6.0 mg/kg as As_2O_3)	2.0 mg/kg	-
Fish oil	0.1 mg/kg	0.1 mg/kg	-	-

Cadmium (Cd)

Food Item	Hong Kong		FSANZ (Portion as ordinarily consumed)	Codex
	Proposed ML (Edible portion - unless stated otherwise)	**Existing ML**		
Fish	0.1 mg/kg Whole commodity after removing the digestive tract	2.0 mg/kg	-	-
Bivalve molluscs	2.0 mg/kg Whole commodity after removal of shell; Scallops: Whole commodity after removal of shell and viscera	2.0 mg/kg (oyster)	2.0 mg/kg (Molluscs - excluding dredge/bluff oysters and queens scallops)	2.0 mg/kg; excluding oysters and scallops
Cephalopods	2.0 mg/kg Whole commodity after removal of shell and viscera	-	-	2.0 mg/kg without viscera
Crustaceans	2.0 mg/kg Edible portion of crab, including the liver and gonads or parts thereof after removal of shell	2.0 mg/kg (crab meat, prawns and shrimp)	-	-
Gastropods	2.0 mg/kg Whole commodity after removal of shell and viscera	-	-	-

Chromium (Cr)

Food Item	Hong Kong		FSANZ (Portion as ordinarily consumed)	Codex
	Proposed ML (Edible portion - unless stated otherwise)	**Existing ML**		
Fish	1.0 mg/kg Whole commodity after removing the digestive tract	1.0 mg/kg	-	-
Crabs, prawns and shrimps	1.0 mg/kg Edible portion of crab, including the liver and gonads or parts thereof after removal of shell	1.0 mg/kg	-	-
Oysters	1.0 mg/kg Whole commodity after removal of shell	1.0 mg/kg	-	-

Lead (Pb)

Food Item	Hong Kong		FSANZ (Portion as ordinarily consumed)	Codex
	Proposed ML (Edible portion - unless stated otherwise)	**Existing ML**		
Fish	1.0 mg/kg Whole commodity after removing the digestive tract	1.0 mg/kg	-	-
Aquatic animals	1.0 mg/kg Not applicable to fish, bivalve molluscs and crustaceans; Edible portion after removal of viscera	6.0 mg/kg	-	-
Fish	0.3 mg/kg Whole commodity after removing the digestive tract	6.0 mg/kg	0.5 mg/kg	0.3 mg/kg
Bivalve molluscs	1.5 mg/kg Whole commodity after removal of shell; Scallops: Whole commodity after removal of shell and viscera	6.0 mg/kg	2.0 mg/kg (Molluscs)	-
Crustaceans	0.5 mg/kg Edible portion of crab, including the liver and gonads or parts thereof after removal of shell	6.0 mg/kg	-	-

Mercury (Hg) - Expressed in methylmercury

Food Item	Hong Kong		FSANZ (Portion as ordinarily consumed)	Codex
	Proposed ML (Edible portion - unless stated otherwise)	**Existing ML**		
Fish	0.5 mg/kg Whole commodity after removing the digestive tract	0.5 mg/kg (total mercury)	See below	0.5 mg/kg GL (Except predatory fish) Predatory fish 1.0 mg/kg GL. Predatory fish such as shark, swordfish, tuna, pike and others.

Mercury (Hg) - Expressed in total mercury

Food Item	Hong Kong		FSANZ (Portion as ordinarily consumed)	Codex
	Proposed ML (Edible portion - unless stated otherwise)	**Existing ML**		
Aquatic animals	0.5 mg/kg Not applicable for fish; Edible portion of the crab, including the liver and gonads or parts thereof after removal of shell; Cephalopods: Whole commodity after removal of shell and viscera; Scallops: Whole commodity after removal of shell and viscera	0.5 mg/kg (total mercury)	See below	-

Table 1 Mercury limits in FSANZ – Schedule 19

S19—7 Mean and maximum levels of mercury in fish, crustacea and molluscs

(1) For subsection 1.4.1—3(2), the following table applies:

For:	*if:*	*the mean level of mercury in sample units must be no greater than:*	*the maximum level of mercury in any sample unit must be no greater than:*
gemfish, billfish (including marlin), southern bluefin tuna, barramundi, ling, orange roughy, rays and all species of shark;	(a) both of the following are satisfied: (i) 10 or more sample units are available; (ii) the concentration of mercury in any sample unit is greater than 1.0 mg/kg:	1.0 mg/kg	1.5 mg/kg
	(b) 5 sample units are available:	1.0 mg/kg	(no level set)
	(c) there are insufficient samples to analyse in accordance with subsection S19—7(2):		1.0 mg/kg
other fish, fish products, crustacea and molluscs;	(a) both of the following are satisfied: (i) 10 or more sample units are available; (ii) the concentration of mercury in any sample unit is greater than 1.0 mg/kg:	0.5 mg/kg	1.5 mg/kg
	(b) 5 sample units are available:	0.5 mg/kg	(no level set)
	(c) there are insufficient samples to analyse in accordance with subsection S19—7(2):		1.0 mg/kg

Tin (Sn)

Food Item	**Hong Kong**		**FSANZ (Portion as ordinarily consumed)**	**Codex**
	Proposed ML (Edible portion - unless stated otherwise)	**Existing ML**		
Canned foods	250 mg/kg Excluding beverages	230 mg/kg	250 mg/kg	250 mg/kg

Aqui-S (Isoeugenol) – New maximum residue limit (MRL) in Korea

For notification: in February 2017 Korea issued a SPS notification that a new Korean MRL for isoeugenol (active component within Aqui-S or clove oil) is being established at 0.01 mg/kg. No timeframe was provided on when the new MRL would come into effect. The current MRL in Australia for isoeugenol is 100 mg/kg for fish (excluding molluscs or crustaceans).