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3.1 Codex Alimentarius: Criteria for the Import of Food from Contaminated Agricultural Land

Food safety in international trade,
by Rob Theelen, Chair's Assistant of the CCCF
9 November 2016, Fukushima City



Codex Alimentarius

“The Codex Alimentarius or "Food Code" was established by FAO and the World Health Organization in 1963 *to develop harmonized international food standards, which protect consumer health and promote fair practices in food trade.*”

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“*Codex standards ensure that food is safe and can be traded.* The 188 Codex members have negotiated science based recommendations in all areas related to food safety and quality: food hygiene; maximum limits for food additives; residues of pesticides and veterinary drugs; and maximum limits and codes for the prevention of chemical and microbiological contamination.”

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source: www.fao.org/fao-who-codexalimentarius/codex-home

The WTO and the FAO/WHO Codex Alimentarius



Collaboration between WTO and the Codex Alimentarius concerns the use of international food safety standards in the context of the SPS Agreement.

Codex Standards in relation to WTO

The WTO's SPS Agreement states that “to harmonize sanitary and phytosanitary measures on as wide a basis as possible, Members shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations”.
The Agreement names the joint FAO/WHO Codex Alimentarius as the relevant standard-setting organization for food safety.



Codex Standards

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Codex standards are based on the *best available science* assisted by independent international risk assessment bodies or ad-hoc consultations organized by FAO and WHO.

While being *recommendations for voluntary application* by members, Codex standards serve in many cases as a basis for national legislation.

The reference made to Codex food safety standards in the World Trade Organization's Agreement on Sanitary and Phytosanitary measures (SPS Agreement) means that *Codex has far reaching implications for resolving trade disputes*. WTO members that wish to apply stricter food safety measures than those set by Codex may be *required to justify these measures scientifically*.

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Codex Standard on Contaminants

Codex standards on Contaminants in Foods are prepared by the *Codex Committee on Contaminants in Foods* (CCCF), and to be adopted by the Codex Alimentarius Commission and its Members and Observers. In a yearly meeting the CCCF discusses proposal of standards, that are developed by the Members and Observers. Decisions are taken on the basis of *consensus*.

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Standards on Contaminants that are adopted are included in the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

NAME	PAGE
Mycotoxins	
Aflatoxins, Total	13
Aflatoxin M ₁	34
Deoxynivalenol (DON)	35
Fumonisin	36
Ochratoxin A	37
Patulin	38
Metals	
Arsenic	39
Cadmium	40
Lead	42
Mercury	47
Methylmercury	48
Tin	49
Radionuclides	50
Others	
Acrylonitrile	55
Chloropropanols	56
Hydrocyanic acid	57
Melamine	58
Vinylchloride monomer	59

Codex Committee on Contaminants in Foods (CCCF)

FAO/WHO ID No:	CX-735
Reference:	CX/CF
Terms of Reference:	(a) to establish or endorse permitted maximum levels or guidelines levels for contaminants and naturally occurring toxicants in food and feed; (b) to prepare priority lists of contaminants and naturally occurring toxicants for risk assessment by the Joint FAO/WHO Expert Committee on Food Additives; (c) to consider methods of analysis and sampling for the determination of contaminants and naturally occurring toxicants in food and feed; (d) to consider and elaborate standards or codes of practice for related subjects; and (e) to consider other matters assigned to it by the Commission in relation to contaminants and naturally occurring toxicants in food and feed.
Status:	Active
Host:	Netherlands



Codex Standard on Radionuclides

The Guideline Levels apply to radionuclides in *foods destined for human consumption and traded internationally*, which have been contaminated following a nuclear or radiological *emergency*. These guideline levels apply to food after reconstitution or as prepared for consumption, and are *based on an intervention exemption level of 1 mSv in a year*.

Commodity/Product Name	Guideline Level (GL) (Bq/kg)	Representative radionuclides
Infant foods	1	Pu-238, Pu-239, Pu-240, Am-241
Infant foods	100	Sr-90, Ru-106, I-129, I-131, U-235
Infant foods	1 000	S-35 (*), Co-60, Sr-89, Ru-103, Cs-134, Cs-137, Ce-144, Ir-192
Infant foods	1 000	H-3(**), C-14, Tc-99
Foods other than infant foods	10	Pu-238, Pu-239, Pu-240, Am-241
Foods other than infant foods	100	Sr-90, Ru-106, I-129, I-131, U-235
Foods other than infant foods	1 000	S-35 (*), Co-60, Sr-89, Ru-103, Cs-134, Cs-137, Ce-144, Ir-192
Foods other than infant foods	10 000	H-3(**), C-14, Tc-99

Annex 1
SCIENTIFIC JUSTIFICATION FOR THE GUIDELINE LEVELS FOR RADIONUCLIDES IN FOODS CONTAMINATED FOLLOWING A NUCLEAR OR RADIOLOGICAL EMERGENCY

Annex 2
ASSESSMENT OF HUMAN INTERNAL EXPOSURE WHEN THE GUIDELINE LEVELS ARE APPLIED

Table 2
ASSESSMENT OF EFFECTIVE DOSE FOR INFANTS AND ADULTS FROM INGESTION OF IMPORTED FOODS IN A YEAR



CCCF working groups on radionuclides

REPORT CCCF 2012

48. The Committee noted the information ... Meeting of the Interagency Committee on Radiation Safety (IACRS) which related to the low values for iodine in the guideline levels for radionuclides in foods could justify their *revision in the General Standard* for Contaminants and Toxins in Food and Feed.

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50. The WHO representative noted that ... there may be some merit in looking into these guideline levels for possible revision and/or *clarification*.

REPORT CCCF 2013

51. Based on the conclusions and recommendations put forward in working document CX/CF 13/7/6 on the revision of the GLs for radionuclides in food in the GSCTFF, the Committee agreed *not to change the current GLs* to MLs for radionuclides in the GSCTFF and therefore to discontinue work on the revision of the GLs for radionuclides in food in the GSCTFF.

53. The Committee noted that after completion of the work carried out by the Inter-agency Working Group, the *CCCF could decide to start new work* on radionuclides as necessary.

REPORT CCCF 2015

132. The Committee welcomed the activities of IAEA in support of member countries to *better deal with nuclear/radiological contamination at the national level* and noted that the information contained in the TECDOC could be useful for future work on radionuclides within CCCF.

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134. In view of the ongoing work of International Commission on Radiological Protection on radionuclides, the Committee agreed that any possible *new work should be delayed until such time as the outcome of the review became available, which might lead to the revision* of the Codex GLs in the GSCTFF.



Conclusions

- Codex Alimentarius standards are not legal standards, but are used worldwide, to harmonize *quality of feed and food being traded internationally*. The standards should be adopted in national legislation of the Codex members.
- Codex Alimentarius standards for radionuclides are described in the GSCTFF and to be used for food contaminated by radioactive compounds due to an incident. These standards are based on health risks for humans, and *food that is compliant to the standards can be considered safe* for human consumption.
- All member states of the Codex Alimentarius are requested to adopt these standards for trade of food. In trade conflicts the WTO will use the Codex Alimentarius standards. To *deviate* is only allowed if proven needed *on the basis of sound science*.
- Recent reassessments of the standards for radionuclides have shown that *changes of the current standards are not considered needed* according to the Codex members. There seems to be however *confusion* on how to use these standards in case of an accident, especially with regard to public health protection vs. trade.