COMMISSION RECOMMENDATION

of 11 October 2004

on the monitoring of background levels of dioxins and dioxin-like PCBs in foodstuffs

(notified under document number C(2004) 3462)

(Text with EEA relevance)

(2004/705/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community, and in particular the second indent of Article 211 thereof,

Whereas:

(1) Commission Regulation (EC) No 466/2001 of 8 March 2001 setting maximum levels for certain contaminants in foodstuffs [1], establishes maximum levels for dioxins in foodstuffs.

(2) Although, from a toxicological point of view, the maximum level should include dioxins, furans and dioxin-like PCBs, maximum levels have been set only for dioxins and furans and not for dioxin-like PCBs, given the very limited data available on the prevalence of the latter. The aforementioned Regulation provides for a review of the maximum levels for the first time, by 31 December 2004 at the latest, in the light of new data on the presence of dioxins and dioxin-like PCBs, in particular with a view to the inclusion of dioxin-like PCBs in the levels to be set.

(3) Regulation (EC) No 466/2001 provides for a further review of the maximum levels for dioxins and dioxin-like PCBs by 31 December 2006 at the latest with the aim of significantly reducing the maximum levels.

(4) It is necessary to generate reliable data across the European Community on the presence of dioxins, furans and dioxin-like PCBs in the widest range of foodstuffs in order to have a clear picture of the time trends in background presence of these substances in foodstuffs.

(5) The relationship between the presence of dioxins, furans, dioxin-like PCBs and non-dioxin-like PCBs is important but to a certain extent unknown. It is therefore appropriate to analyse the selected samples also for non-dioxin-like PCBs where possible.

(6) Commission Recommendation 2002/201/EC of 4 March 2002 on the reduction of the presence of dioxins, furans and PCBs in feedingstuffs and foodstuffs [2], recommends that Member States perform random monitoring of the presence of dioxins, furans and dioxin-like PCBs in foodstuffs, proportionate to their production and consumption of foodstuffs. This monitoring should be carried out following detailed guidelines established by the Standing Committee on the Food Chain and Animal Health. These guidelines should contain, in order to ensure a high degree of uniformity across the European Community, provisions, *inter alia*, concerning the minimum frequency and the format of reporting of the results.

(7) It is important that these data are reported on a regular basis to the Commission. The Commission will ensure the compilation of these data into a database which will be publicly available for consultation.

(8) The Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia joined the European Community on 1 May 2004. It is appropriate that the new Member States participate in the monitoring programme as soon as possible. It is however acknowledged that it is appropriate to provide a transitional arrangement for the new Member States and that for the time being no detailed minimum frequency for the random monitoring of the presence of dioxins, furans and dioxin-like PCBs in foodstuffs is recommended for the new Member States,

HEREBY RECOMMENDS:

1. That Member States perform, from the year 2004 onwards until 31 December 2006, the monitoring of the background presence of dioxins, furans and dioxin-like PCBs in foodstuffs using the recommended minimum frequency of samples to be analysed yearly, as foreseen in the table of Annex I as guidance. The frequency of the samples should be reviewed each year in the light of the experience gained.

[1] OJ L 77, 16.3.2001, p. 1. Regulation as last amended by Regulation (EC) No 684/2004 (OJ L 106, 15.4.2004, p. 6).

[2] OJ L 67, 9.3.2002, p. 69.

2. That the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia participate as soon as possible in the monitoring programme on the presence of dioxins, furans and dioxin-like PCBs in foodstuffs. The frequency of the samples to be analysed yearly by the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia will be established from the year 2005 onwards.

3. That Member States provide, on a regular basis to the Commission, the monitoring data with the information and in the format as provided for in Annex II for compilation into one database. It is appropriate that data from recent years obtained by making use of a method of analysis complying with the requirements laid down by Commission Directive 2002/69/EC of 26 July 2002 laying down the sampling methods and the methods of analysis for the official control of dioxins and the determination of dioxin-like PCBs in foodstuffs [1] and reflecting background levels are also provided.

4. That Member States, if possible, also perform the analysis on non-dioxin-like PCBs in the same samples.

Done at Brussels, 11 October 2004.

For the Commission

David BYRNE

Member of the Commission

[1] OJ L 209, 6.8.2002, p. 5. Directive as amended by Directive 2004/44/EC (OJ L 113, 20.4.2004, p. 17).

ANNEX I

Table: Overview of the recommended minimum number of food samples to analyse yearly. Distribution of samples is based on production in each country. Particular attention is paid to foodstuffs expected to have a large variation in background levels of dioxins, furans and dioxin-like PCBs. This is particularly the case for fish.

Country (*)	N (1)	Meat and meat products (2)					Fish and fishery products (3)		Milk and milk products (4)		Eggs (5)		Oils and fats (6)			Fruit, vegetables and cereals (7)		
		Beef	Pigs	Sheep	Poultry	Liver	Fish	Aquaculture products	Milk	Butter/cheese/yoghurt	Cage eggs	Free-range eggs	Animal	Vegetable	Fish oils/food supplements	Vegetables	Fruit	Cereals
Belgium	53	4	4	2	4	3	3	3	3	4	3	3	3	4	3	3	2	2
Denmark	66	3	5	2	3	3	15	5	3	3	3	3	2	3	6	3	2	2
Germany	147	13	13	3	6	7	7	5	14	14	10	11	12	14	4	4	2	8
Greece	55	2	2	7	3	2	4	7	3	3	3	3	2	3	3	4	2	2
Spain	151	7	9	11	7	6	33	16	3	3	7	7	4	10	5	9	10	4
France	168	14	8	5	15	11	18	16	12	14	12	6	6	6	3	6	4	12
Ireland	61	7	3	3	3	3	9	3	3	5	3	3	2	3	4	3	2	2
Italy	126	10	5	5	8	5	8	14	6	3	8	15	3	7	3	12	10	4
Luxembourg	30	2	2	1	2	1	3	1	3	3	3	2	1	1	2	1	1	1
Netherlands	88	6	6	3	6	4	14	7	5	6	7	3	3	7	3	4	2	2
Austria	52	4	4	2	3	2	3	3	3	3	3	7	2	3	3	3	2	2
Portugal	51	3	3	3	4	2	6	3	3	3	3	3	2	3	3	3	2	2
Finland	45	3	3	2	2	1	4	3	3	3	3	3	2	3	3	3	2	2
Sweden	54	3	3	2	3	2	10	3	3	3	3	3	2	3	4	3	2	2
United Kingdom	113	7	4	10	10	4	24	12	7	4	7	3	3	5	4	3	2	4
Total EU	1 260	88	74	59	79	56	161	101	74	74	78	75	49	75	53	64	47	53
Iceland	67	2	2	1	2	1	29	2	3	3	3	2	1	1	12	1	1	1
Norway	125	3	3	2	3	3	46	28	3	3	3	3	3	3	10	3	3	3
Total EEA	1 452	93	79	62	84	60	236	131	80	80	84	80	53	79	75	68	51	57

(*) The Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia joined the European Community on 1 May 2004. It is appropriate that the new Member States participate in the monitoring programme as soon as possible. It is however acknowledged that it is appropriate to provide a transitional arrangement for these new Member States and therefore no detailed minimum frequency for the random monitoring of the presence of dioxins, furans and dioxin-like PCBs in foodstuffs is recommended for these countries.

Remarks on the table

(1) The figures mentioned in the table are minimum figures. Member States are invited to take more samples. The additional samples should be preferably taken from the categories of foodstuffs contributing significantly to the exposure: i.e. meat and meat products, fish and dairy products (farm milk).

(2) Meat and meat products: in addition to the mentioned categories, a number of samples should be taken from horsemeat, goatmeat, rabbitmeat and, to a limited extent, game.

(3) Fish and fishery products: the samples for wild fish and aquaculture should be divided over the species proportionate to the catch or production (for aquaculture). As guidance, the species-specific data on catch and production of fish and fishery products available in the brochure 'Facts and figures on the CFP – basic data on the Common Fisheries Policy', European Communities, 2004 can be used.

Using these data following numbers of samples to be taken for different fish species and fishery products can be given as guidance

Catches for Member States ≥ 10 samples recommended

Denmark: 15 samples ⟶ 4 herring, 4 blue mussel, 7 other

Spain: 33 samples ⟶ 7 skipjack tuna, 4 pilchard, 5 yellowfin tuna, 2 horse mackerel, 2 short-fin squid, 13 other

France: 18 samples ⟶ 3 skipjack tuna, 3 yellowfin tuna, 2 pilchard, 2 saithe, 2 herring, 6 other

Netherlands: 14 samples ⟶ 4 sardinellas, 2 horse mackerel, 3 herring, 2 mackerel and 3 other

Sweden: 10 samples ⟶ 5 herring, 4 sprat and 1 cod

United Kingdom: 24 samples ⟶ 6 mackerel, 4 herring, 3 haddock, 2 cod and 9 other

Aquaculture products for Member States ≥ 5 samples recommended

Denmark: 5 samples ⟶ 4 trout and 1 eel

Germany: 5 samples ⟶ 2 mussels, 2 trout and 1 carp

Greece: 7 samples ⟶ 3 seabream, 2 seabass, 1 mussels and 1 other

Spain: 16 samples ⟶ 8 mussels, 3 trout, 1 seabream, 1 oyster, 1 tuna and 2 other

France: 16 samples ⟶ 8 oysters, 4 mussels, 3 trout and 1 carp

Italy: 14 samples ⟶ 6 mussels, 3 clam, 3 trout, 1 seabass, 1 seabream

Netherlands: 7 samples ⟶ 4 mussels, 1 eel, 1 oyster and 1 catfish

United Kingdom: 12 samples ⟶ 9 salmon, 2 trout and 1 mussel

(4) Milk and milk products: at least four fifths of the milk samples should be taken from farm milk (mainly cow's milk). It is also appropriate to take some additional samples of milk and milk products other than cow's milk (goat milk etc.).

(5) Eggs: in addition to hen eggs, eggs of ducks, geese and quail should also be sampled.

(6) Oils and fats: it is appropriate that in addition to fish oil, also food supplements on the basis of fish oil (fish body oils and fish liver oils) are sampled.

(7) Vegetables: mainly leafy vegetables but also potatoes and other root and tuber vegetables.

Fruit: including berries and strawberries.

ANNEX II

A. **Explanatory notes to the form for analytical results of dioxins, furans and dioxin-like PCBs and other PCBs in food**

1. *General information about the samples analysed*

Country: name of the Member State where the monitoring has been carried out

Year: the year the monitoring was carried out

Product: food item analysed — describe the food item as precise as possible

Stage of marketing: place where the product (sample) was collected

Tissue: part of product analysed, for example, fat or muscle

Expression of results: the results are to be expressed on the basis on which the maximum levels have been established (Council Regulation (EC) No 2375/2001). In case of the analysis of non-dioxin-like PCBs, it is highly recommended to express the levels on the same basis.

Type of sampling: random sampling — analytical results from targeted sampling can also be reported but it must be clearly indicated that the sampling was targeted and does not necessarily reflect normal background levels

Methods: refer to the method used

Accredited: specify if the analytical method is accredited or not

Uncertainty (%): the percentage of the measurement uncertainty embodied in the analytical method.

2. *Specific information about the samples analysed*

Sample No: number of samples of same kind of product analysed. If you have results of more samples than there are marked columns, just add new columns with the number at the end of the form.

Method of production: conventional/organic (as detailed as possible)

Area: insofar as relevant, district or region where the sample was collected, if possible with indication if it concerns rural area, urban area, industrial zone, harbour, open sea, etc. For example, *Brussels — urban area, Mediterranean — open sea*.

Number of subsamples: if the analysed sample is a pooled sample, the number of subsamples (number of individuals) should be notified. If the analytical result is just based on one sample, one should be notified. Number of subsamples in a pooled sample could vary, so please specify this for every sample.

Fat content (%): the percentage of fat content in the sample

Moisture content (%): the percentage of moisture content in the sample (if available).

3. *Results*

Dioxins, furans, dioxin-like PCBs: results of every congener should be reported in ppt — picogram/gram (pg/g).

Non-dioxin-like PCBs: results of every congener should be reported in ppb — microgram/kilo (μg/kg).

LOQ: limit of quantification in pg/g or µg/kg (for non dioxin-like PCBs)

LOD: limit of detection in pg/g or µg/kg (for non dioxin-like PCBs)

For congeners determined but below the LOD (limit of detection) the case of results should be filled in as < LOD (the LOD should be reported as a value).

For congeners determined but being below LOQ (limit of quantification) the case should be filled in as < LOQ (the LOQ should be reported as a value).

For PCB congeners analysed in addition to the PCB-7 and dioxin-like PCBs the number of the PCB congener need to be added to the form, for example, 31, 99, 110, etc. If the sample is analysed for more PCB congeners than there are marked rows, just add new rows at the bottom of the form.

4. *Remarks*

Besides the lipid extraction method used, additional relevant remarks to the submitted data can be mentioned.

B. **Form for reporting of congener specific analytical results of dioxins, furans, dioxin-like PCBs and other PCBs in food**

Country	
Year	
Product	
Stage of marketing	
Tissue	
Expression of results	
Type of sampling	
Sample No	
Product method	
Area	
Number of subsamples	
Fat content (%)	
Moisture content (%)	

Remarks
Lipid extraction method used:

1.	Dioxins and furans (pg/g)		Congeners	TEF	LOD	LOQ	Recovery (%)	Results	TEQ
	Methods		2,3,7,8 — TCDD	1					
	Detection		1,2,3,7,8 — PeCDD	1					
	Unit		1,2,3,4,7,8 — HxCDD	0,1					
	Accredited		1,2,3,6,7,8 — HxCDD	0,1					
	Uncertainty (%)		1,2,3,7,8,9 — HxCDD	0,1					
			1,2,3,4,6,7,8 — HpCDD	0,01					
			OCDD	0,0001					
			2,3,7,8 — TCDF	0,1					
			1,2,3,7,8 — PeCDF	0,05					
			2,3,4,7,8 — PeCDF	0,5					
			1,2,3,4,7,8 — HxCDF	0,1					
			1,2,3,6,7,8 — HxCDF	0,1					
			1,2,3,7,8,9 — HxCDF	0,1					
			2,3,4,6,7,8 — HxCDF	0,1					
			1,2,3,4,6,7,8 — HpCDF	0,01					
			1,2,3,4,7,8,9 — HpCDF	0,01					
			OCDF	0,0001					

Total TEQ-PCDD/PCDF	
Upperbound	
Mediumbound	
Lowerbound	

2.	Non-ortho PCBs (pg/g or ng/kg)		PCB congeners	TEF	LOD	LOQ	Recovery (%)	Results	TEQ
	Methods		PCB-77	0,0001					
	Detection		PCB-81	0,0001					
	Unit		PCB-126	0,1					
	Accredited		PCB-169	0,01					
	Uncertainty (%)								
3.	Mono-ortho PCBs (pg/g or ng/kg)		PCB congeners	TEF	LOD	LOQ	Recovery (%)	Results	TEQ
	Methods		PCB-105	0,0001					
	Detection		PCB-114	0,0005					
	Unit		PCB-118	0,0001					
	Accredited		PCB-123	0,0001					
	Uncertainty (%)		PCB-156	0,0005					
			PCB-157	0,0005					
			PCB-167	0,00001					
			PCB-189	0,0001					

Total TEQ-PCB	
Upperbound	
Mediumbound	
Lowerbound	

NON DIOXIN-LIKE PCBs

4.	PCB-7 (6) (µg/kg or ppb)		PCB congeners		LOD	LOQ	Results
	Methods		PCB-	28			
	Accredited		PCB-	52			
	Unit		PCB-	101			
	Uncertainty (%)		PCB-	118			
			PCB-	138			
			PCB-	153			
			PCB-	180			

5.	Other PCBs (µg/kg or ppb)		PCB congeners		LOD	LOQ	Results
	Methods		PCB-				
	Accredited		PCB-				
	Unit		PCB-				
	Uncertainty (%)		PCB-				
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