

EU legislation: Radioactive contamination of food

Introduction

In the European Union there are two types of legislation restricting the presence of radioactive contamination of food.

1. "Post-Chernobyl legislation". Legislation laid down as a direct consequence of the Chernobyl accident (first Regulation dates of 1986).
2. "Future accidents legislation". Legislation laying down maximum permitted levels of radioactive contamination of foodstuffs and feedingstuff if a radiological accident took place. This Regulation was first issued in 1987.

Both (1) and (2) are covered by this document.

Outline of the legislation



1. Legislation directly related to the Chernobyl accident

The nuclear accident in Chernobyl in 1986 resulted in a steam explosion. The fire released about five percent of the radioactive reactor core into the atmosphere and downwind. Thus considerable quantities of radioactive elements were released into the atmosphere and resulted in radioactive contamination in certain agricultural products.

Because of this accident a Regulation was adopted laying down the maximum permitted caesium levels applicable to the imports of **agricultural products** into the European Union. The original Regulation was extended several times, the latest extension took place in 2000 for a period of 10 years. Thus: as a consequence of the Chernobyl accident, there are still restrictions on the imports of agricultural products into the EU.

The Regulation currently in force is **Regulation (EEC) No. 737/90** on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power-station. It is amended by **Regulation (EC) No. 616/2000**.

The restriction for the marketing of products is as follows:

The release for free circulation of products referred to in Article 1 of the Regulation is subject to compliance with the following maximum permitted levels:

The accumulated maximum level in terms of caesium – 134 and – 137 are:

- 370 Bq/kg for milk and milk products listed in Annex II of the Directive (CN codes: 0401, 0402, 0403 10 11 to 39, 0403 90 11 to 69, 0404).
- 370 Bq/kg for foodstuffs intended for the special feeding of infants during the first four to six months of life, which meet in themselves the nutritional requirements of this category of persons and are put up for retail sale in packages which are clearly identified and labelled "food preparation for infants".
- 600 Bq/kg for all other food products concerned.

➡ For more information on the products referred to in Article 1, please consult the external links.

Exceptions to these products are products unfit for human consumption. The products falling within this category are listed in Annex 1 of the Regulation. This Annex can be found on the internet in **Regulation (EEC) No. 737/90**.

The amendment states that the Directive shall expire on March 31st 2010, unless the Council decides otherwise at an earlier date, in particular if the list of excluded products in article 6 covers all the products fit for human consumption to which this Regulation applies.

Annex I of the related **Regulation (EC) No. 1609/2000** lists all products for which the threshold limits mentioned above are valid. Thus all products other than those listed in this Annex are excluded from the scope of **Regulation (EEC) 737/90** and its amendment. The link to the Regulation including this important Annex can be found at the summary page.

Legislative references

- **Regulation (EEC) No. 737/90** on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power-station.
- **Regulation (EC) No. 616/2000** amending **Regulation (EEC) No. 737/90**.
- **Regulation (EC) No. 1661/1999** laying down detailed rules for the application of Council **Regulation (EEC) No. 737/90** and its amendment **Regulation (EC) No. 1627/2000**.
- **Regulation (EC) No. 1609/2000** establishing a list of products excluded from the application of **Council Regulation (EEC) No. 737/90**.

2. Regulation (Euratom) No 3954/87 laying down the maximum permitted levels of radioactive contamination of foodstuffs and feedingstuffs following a nuclear accident or any other case of radiological emergency

In the European Union legislation has been laid down in order to establish maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs in case of a nuclear accident or radiological emergency. Radioactivity is of particular concern for agricultural products grown in areas where nuclear plants are located, or where transport of nuclear materials takes place. After a nuclear accident or radiological emergency took place, the European Commission can take measurements rendering applicable these maximum permissible levels.

What is a foodstuff according to these Regulations?

For the purpose of Regulation 3954/87 foodstuffs means products which are intended for human consumption either immediately or after processing.

In other words, if the European Commission receives information about an accident or any other case of radiological emergency, substantiating that the maximum permissible levels laid down in **Regulation (Euratom) No. 3954/87** and its amendment **Regulation (Euratom) No. 2218/89** are likely to be reached or have been reached, the Commission will take measures. If necessary, these measurements consist of a Regulation that makes the threshold limits laid down by this Regulation applicable. Moreover, it is laid down that the period of validity of such a regulation is as short as possible, and shall not exceed three months.

The maximum permitted levels of radioactive contamination of foodstuffs are listed in the table on the next page. Thus, the threshold limits are only applicable if the European Commission has received information on a nuclear accident or radiological emergency and if the EC has issued a Regulation in which the maximum permissible levels are rendered applicable.

For **minor foodstuffs** the maximum permitted limits to be applied are 10 times those applicable to the threshold limits laid down in the table. In other words, for minor foodstuffs, the threshold limits are less strict. Some examples of minor foodstuffs are: vanilla, garlic, mate and saffron.

➡ [For more information](#) on the list of minor foodstuffs in Regulation (Euratom) No. 3954/87 please see the external links.

Maximum permitted levels of radioactive contamination for foodstuffs following a nuclear accident or any other case of radiological emergency.

	Baby foods¹ Bq/kg or Bq/l	Dairy produce Bq/kg or Bq/l	Other foodstuffs except minor foodstuffs Bq/kg or Bq/l	Liquid foodstuffs Bq/kg or Bq/l
Isotopes of strontium, notably Sr-90	75	125	750	125
Isotopes of iodine, notably I-131	150	500	2000	500
Alpha-emitting isotopes of plutonium and transplutonium elements, notably Pu-239, Am-241	1	20	80	20
All other nuclides of half-life greater than 10 days notably Cs-134, Cs-137	400	1000	1250	1000

¹ The level applicable to concentrated or dried products is calculated on the basis of the reconstituted product as ready for consumption. EU member states may make recommendations concerning the diluting conditions in order to ensure that the maximum permitted levels laid down in this Regulation are observed.