

Nuclear and Radiological Regulatory Authority

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Regulation for  
LIMITS AND STANDARDS OF THE PERMISSIBLE RADIATION  
LEVELS WHEN IMPORTING, PRODUCING, EXPORTING OR  
SELLING ANY FOODSTUFFS OF OTHER COMMODITIES FOR  
HUMAN AND NON-HUMAN USE

**Egyptian Nuclear and Radiological Regulatory Authority**

**Board Decision No. 2 of 2014**

**Issuing Regulation for Limits and Standards of the Permissible Radiation Levels When Importing, Producing, Exporting or Selling any Foodstuffs or Other Commodities for Human and Non-Human Use**

**Nuclear and Radiological Regulatory Authority Board after:**

- Reviewing the law regulating nuclear and radiological activities promulgated by Law No. 7 of 2010 and its executive regulations
- The approval of the Board of Directors of the Egyptian Nuclear and Radiological Regulatory Authority in its meeting No. 8 held on 29/09/2014

**Decided**

**Article (1)**

The provisions of the attached regulations shall apply to the limits and standards of the permissible radiation level when importing, producing, exporting or selling any foodstuffs or other commodities for human and non-human use.

**Article (2)**

This decree shall be published in the Egyptian Gazette and enter into effectiveness on the day following the date of its publication.

**Issued on 09/10/2014**

**Prof. Samy Shaban Atalla**



Regulation for  
**LIMITS AND STANDARDS OF THE PERMISSIBLE RADIATION  
LEVELS WHEN IMPORTING, PRODUCING, EXPORTING OR SELLING  
ANY FOODSTUFFS OR OTHER COMMODITIES FOR HUMAN AND  
NON-HUMAN USE**

Article (1)

It is prohibited to import, bring, produce, export or sell any foodstuffs, drinking water, or any other materials for human or non-human use in which the natural radioactivity exceeds the levels shown in the tables numbers (1-2-3-4) attached to this regulation.

Article (2)

The Nuclear and Radiological Regulatory Authority should set permissible radiation concentrations limits when importing, bringing, producing, exporting, or selling any foodstuffs, drinking water, or any other materials related to human or non-human use that are not stipulated in the tables attached to this regulation, or if these materials contain radioactive elements not stipulated in those tables, after analyzing and evaluating samples of them radioactively, provided that the limits of its radiation concentration do not exceed the values of the global averages of these materials according to the tables of the International Atomic Energy Agency or any other references, approved by the ENRRA, guided by the limits and rules indicated in Table No. 5 attached hereto.

Article (3)

It is not permitted for any party to conduct radiological detection of various materials except after obtaining a prior license from the Nuclear and Radiological Regulatory Authority in accordance with the rules, conditions and standards stipulated in the Law No.7 of 2010 and its executive regulations, as well as the rules and systems established by the authority. It shall carry out its work within the limits of this license, and ENRRA may conduct the necessary inspection on those authorized bodies for radiological detection and verification by measurements and documents of the efficiency of laboratories, the correctness and accuracy of measurements, and the calibration of devices.

Article (4)

In case of a nuclear or radiological event or accident inside or outside the Republic that may have a radiological effect on products for human and non-human use inside, The Nuclear and Radiological Regulatory Authority shall set a temporary limits for radiation concentrations to meet the nuclear and radiological emergency in accordance with the procedures of the National plan for Nuclear and Radiological Emergency and guided by the limits and rules indicated in Table No. (5) attached to this regulation.



Article (5)

In the event of a nuclear or radiological accident in the country of origin or one of its neighboring countries, the importer of any product related to human or non-human use is obliged to submit a certificate approved by the supervisory authority in the country of origin of this product stating the amount of contamination in the product, and this shall be under the consideration of the licensed authorities for radiation detection when conducted to verify that this amount is within the limits of the radiation concentration authorized by the Nuclear and Radiological Regulatory Authority.

Tables

Table (1)

Maximum Radiation Concentration Limits for the Radionuclides of Uranium-238, Radium-226, Thorium-232, and Potassium-40 isotope in Domestic and Imported Food Samples

Kind of Food	Radiation concentration Bq/kg			
	U-238	Ra-226	Th-232	P-40
Grain Products	0.02	0.08	0.003	500.00
Milk Products	0.004	0.02	0.001	1000.00
Fruits	0.04	0.40	0.006	2000.00
Leafy Vegetables	0.1	0.4	0.1	3000.00
Roots Vegetables	0.02	0.2	0.003	2000.00
Meat Products	0.008	0.06	0.004	2200.00
Fish Products	0.1	0.3	0.03	6000.00

\*Values are calculated based on the dry weight of the sample

Table (2)

Maximum Radiation Concentration Limits for Drinking Water

Type of analysis	Bq/Liter
Gross alpha radiation other than radon and uranium	0.5
Gross beta radiation	1.00
Radium-226 and radium-228	0.185
Total Uranium	0.186





رئاسة مجلس الوزراء  
هيئة الرقابة النووية والإشعاعية  
**ENRRA**  
Egyptian Nuclear & Radiological  
Regulatory Authority

رئيس مجلس الإدارة  
Chairman of the Board

Table (3)  
Maximum Radiation Concentration Limits for Natural Radionuclides in the Materials  
Used as Animal Feed

Material	Radiation concentration Bq/kg		
	U-238	Th-232	P-40
Leftover sugar beet feed	≤0.6	≤0.7	≤3.00
Cotton Seed	≤0.6	≤0.7	1000.00
Malt barley	≤0.6	≤0.7	≤3.00
Substratum Additions	≤0.6	≤0.7	≤3.00
Feed additives	50.00	70.00	500.00
Concentrated Feed	50.00	20.00	500.0

\*Values are calculated based on the dry weight of the sample

Table (4)  
Maximum levels of Radiation concentration of Natural Radionuclides in various Raw  
Materials and Industrial Products

Material	Radiation concentration Bq/kg	
	U-238 + Th-232	P-40
Zirconium ores	4000.00	200.00
Rutile	2900.00	--
Fluorspar	1000.00	2000.00
Bauxite	2300.00	600.00
Alimonite	4000.00	100.00
Phosphates	2000.00	--
Heavy Metal Concentration	4000.00	--
Soot (coal ash)	2500.00	1500.00
Phosphogium	1500.00	200.00
Potash fertilizers	30.00	1500.00
Phosphate fertilizers	2500.00	1500.00

Table (5)

**Intervention Limits to prevent Foods intended for Public Consumption from circulation in Nuclear and Radiological Emergencies**

Radionuclides in Milk, Baby Food, and Drinking Water	Radiation concentration Bq/kg
Cesium-137, Cesium-134, Ruthenium-103, Ruthenium-106, Strontium-89	1000.00
Iodine-131, strontium-90	100.00
Americium-241, plutonium-238, plutonium-239, plutonium-240, plutonium-242	100
Tritium (H-3), Carbon-14, Technetium-99	1000.00

- \* These foods are allowed in case of extreme necessity and no other food alternative is available.
- \* Categories of foods consumed in small quantities (less than 10 kg per person per year) such as spices, for example, which represent a small part of the total diets and do not add to individual exposure rates except for very small additions, for which the procedural levels applied could be ten times higher than the procedural levels applied to main food.

