

PNRI ADMINISTRATIVE ORDER NO. 1
Series of 2009

**GUIDANCE LEVELS FOR REPRESENTATIVE RADIONUCLIDES IN FOODS
FOLLOWING ACCIDENTAL NUCLEAR CONTAMINATION**

WHEREAS, the **Philippine Nuclear Research Institute (PNRI)** is authorized by Section 4 (a) of Republic Act (R.A.) No. 5207, as amended by Presidential Decree No.1484, to issue orders with respect to atomic energy materials for the protection of the health and safety of the workers and of the general public;

WHEREAS, the Food and Agriculture Organization (FAO) of the United Nations and the World Health Organization (WHO) recognized the importance of developing international standards for the purposes of protecting public health and minimizing disruption of international food trade;

WHEREAS, the **Codex Alimentarius Commission (CAC)**, created jointly in 1963 by the WHO and the FAO, is a global agency that establishes international standards for substances potentially harmful to human health and the environment and provides a reliable standard-setting process to assist developing countries lacking the infrastructure to create domestic safeguards for food safety and health;

WHEREAS, the Codex Alimentarius Commission adopted **CAC/GL 5-1989**, “Guideline Levels for Radionuclides in Foods Following Accidental Nuclear Contamination for Use in International Trade”;

WHEREAS, the international trading of food that has been accidentally contaminated with radionuclides shall be subject to the recommendations of the Codex Alimentarius Commission;

WHEREAS, the PNRI adopts CAC/GL 5-1989 and establishes the following guidance levels for representative radionuclides in foods following accidental nuclear contamination as basis in ensuring that foods are safe for human consumption:

Foods Destined for General Consumption

Dose per unit intake factor (Sv/Bq)	Representative radionuclides	Level (Bq/kg)
10^{-6}	^{241}Am , ^{239}Pu	10
10^{-7}	^{90}Sr	100
10^{-8}	^{131}I , ^{134}Cs , ^{137}Cs	1000

Milk and Infant Foods

Dose per unit intake factor (Sv/Bq)	Representative radionuclides	Level (Bq/kg)
10^{-6}	^{241}Am , ^{239}Pu	1
10^{-7}	^{131}I , ^{90}Sr	100
10^{-8}	^{134}Cs , ^{137}Cs	1000

WHEREAS, the guidance levels are designed to be applied only to radionuclides contaminating food moving in international trade following an accident and not to naturally occurring radionuclides which have always been present in the diet;

WHEREAS, the guidance levels apply to radionuclides that are: 1) important for uptake into the food chain; 2) usually contained in nuclear installations or used as a radiation source in large quantities enough to be significant potential contributors to levels in foods; 3) routinely discharged or could be accidentally released into the environment from typical installations; or 4) used in applications or might conceptually be employed in malevolent actions;

WHEREAS, the guidance levels apply to food after reconstitution or foods destined for human consumption and traded internationally, including infant foods;

WHEREAS, the guidance levels are based on an intervention exemption level of around 1mSv in a year;

WHEREAS, the guidance levels would be unnecessarily restrictive if applied to: 1) dried or concentrated foods prior to dilution or reconstitution; 2) certain classes of food which are consumed in small quantities, such as spices; and 3) Foods that represent a very small percentage of total diets and hence would be very small additions to the total dose;

WHEREAS, the guidance levels have extensive conservative assumptions built-in, hence there is no need to add contributions from radionuclides in different groups. Each of the dose per unit intake group should be treated independently. However, the activity concentrations of each radionuclide within the same group should be added together;

WHEREAS, the PNRI has the authority to make decision whether and under what circumstances the food should be distributed within the country when the guidance levels are exceeded;

WHEREAS, the PNRI may adopt different values for internal use within the country, where the assumptions concerning food distributions that have been made to derive the Guidance Levels may not apply;

WHEREAS, the guidance levels remain applicable for one year following a nuclear accident.

NOW, THEREFORE, I, ALUMANDA M. DELA ROSA, PNRI Director, by the powers vested in me, do hereby issue this Order which shall take effect immediately and shall be enforced until revoked in writing.

(SGD) **ALUMANDA M. DELA ROSA, Ph.D.**

Director

Date: _____