

Collectif français contre l'irradiation des aliments

c/o Action Consommation

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*Letter to : Mrs Meglena Kuneva, DG Health and Consumer Protection
Mr Markos Kyprianou, DG Health and Consumer Protection
Mr Günter Verheugen, DG Enterprise and Industry
Mr Stavros Dimas, DG Environment*

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Dear Madam, Dear Sirs,

While the number of irradiation plants in the world keeps growing and the volume of irradiated food marketed in European countries is unknown, both inefficient European regulation and lack of data on health risks linked to irradiated food consumption are alarming.

Irradiation keeps increasing throughout the world (as well as probably international trade of irradiated food). The number of irradiation plants has exploded during the past years, especially in the countries with a high development potential. Between 2003 and 2006, 43 new irradiation plants were built in China (rising from 7 in 2003 to 50 in 2006) and India is planning to establish 25 new plants by 2012. In addition, Mexico is planning to build the biggest irradiation plant in the world. The internationalisation of trade – and of farming products – goes hand in hand with this technology.

Around sixty countries in the world authorise food irradiation and more than thirty use it, some of which for a wide range of products. In South Africa, Brazil and Ghana, almost every food can be irradiated; while in China, Croatia, Russia, Ukraine and in the USA, a wide range of food, even some meat, can be irradiated; and in Cuba, India, Mexico, many meat categories can be irradiated.¹

In fact, no one knows the amount of irradiated food that is imported into the European Union.

Although the WHO, together with the FAO and the IAEA², recommends food irradiation and the *Codex alimentarius* – WTO standard – authorises irradiation for all product categories, the European Union has adopted a restrictive legislation³, limiting - via a temporary list - the authorised products to one category (dried aromatic herbs, spices and vegetables seasonings) with a maximum overall average absorbed radiation dose fixed at 10 kGy. Labelling is compulsory and Members States are to carry out controls and send to the Commission yearly information detailing volumes and categories of irradiated food, the radiation doses applied and the checks at the marketing stage. As Members States have

¹ « Irradier nos aliments? non merci », Maria Denil – Paul Lannoye, march 2005 (reedited by FUGEA asbl, GRAPPE asbl, Public Citizen, Réseau Sortir du Nucléaire

² its objective being to promote the civilian use of nuclear energy

³ Commission Directive 1999/2/CE and directive 1999/3/CE of the European Parliament and of the Council of February, 22nd 1999

disagreed on a final positive list of products, they were allowed to maintain authorisations, provided that the Scientific Committee on Food (SCF) agrees on the authorised products. However, this legislation can only ensure very little fraud investigation and cannot guarantee any control on the quantities distributed. Moreover, the principle of free trade of goods within the European Union authorises the marketing of goods commercialised in one Member State⁴ in any other country of the European Union

The volume of irradiated food marketed in the European Union is unknown: data on tonnage of irradiated food is missing⁵ (Spain and Italy – though huge producers of fruits and vegetable owners of several irradiation plants – do not give any information) and no data is available concerning the volume of imports into the European Union. Other data lacks rigour, especially concerning The Netherlands and Belgium, countries responsible for irradiating the two highest volumes of food in EU.

The Netherlands do not give any information on the average dose absorbed by each type of irradiated food, and Belgium applies average quantities of 2 to 25 for the products belonging to the category “others” that actually represents more than 12% of the global irradiated volumes in the country. Thus, among the 12% share of products irradiated in Belgium, some have probably been irradiated by a dose higher than 10 kGy.

Moreover, in some Members States, irradiation is used for products and food ingredients not authorised by the same country: for example in 2005 in Germany (dried vegetables, plant raw materials, guarana seed), in the Czech Republic (dried vegetables and dried fruits), in The Netherlands (« products intended for exports to third countries »), in Poland (dried mushrooms, dried vegetables)

Controls carried out by Members States on products at the marketing stage are inconsistent, disparate, varying from one year to the other and from one country to the other, and established without any common rule. In addition, frauds are steadily growing: from an average of 1,4% of the checked samples in 2001 to 4% in 2005 – considering the whole 16 countries giving more or less information – were marketed illegally (products without authorisation) and/or were not properly labelled.

In 2005, only 16 Members States made such checks, except for the following countries: Cyprus, Denmark, Estonia, Spain, Latvia, Lithuania (12), Malta, Portugal, Sweden (0 in 2004, 6 in 2005...), and Slovenia (10). From the information reported by the other countries, it is impossible to make any comparison.

- Austria detected one sample in 2004 (for two checked) of dried fish “irradiated, not correctly labelled” (it was the unique anomaly for 118 samples); no analytical check was made on dried fish in 2005.
- Belgium analysed 5 categories of products: 4 within the 23 categories of products authorised.
- Germany analysed 4 302 samples in 2004 (fraud rate: 1, 7%), 3 945 samples in 2005 (fraud rate: 3, 6%).
- Denmark analysed 53 samples, with a fraud rate rising to 6%, in 2004, but did not make any check in 2005.
- Greece analysed 309 samples (dried herbs and spices, food supplements) in 2004, with a fraud rate rising to 30% (66% on the food supplements). In 2005, it checked only 54 samples and no food supplement, thus obtaining a fraud rate of 0%.
- Finland analysed 309 samples in 2004, with a fraud rate of 30% (actually 66% of 12 food supplements tested). In 2005, it checked only 274 samples (fraud rate of 33% on analysed food supplements). No sample containing irradiated foodstuff was properly labelled, and the irradiation plans were not agreed by the European Union.
- France authorised 16 categories of products and analysed 60 samples in 2004 (0 in 2003); most of the samples were dried spices (no sample was irradiated). In 2005, 86 samples (7

⁴ The Framework directive 1999/2/CE explains: « Until entry into force of the Directive adopted on the basis of the proposal referred to in the second subparagraph of paragraph 3, any Member State may also authorise the treatment of foodstuffs for which authorisations have been maintained by another Member State (...).

⁵ Unless otherwise indicated, the following indications refer to annual reports of the Commission on the treatment of foods by irradiation.

categories of products) were checked and the fraud rate rose to 7%⁶: The whole of the 5 checked samples of frog legs were irradiated, without any labelling. (NB: the report mistakenly mentions 6 samples of herbs as irradiated and not correctly labelled.). In 2006, the fraud rate in a sample of 105 checked products rose to 10%.

- Italy analysed 112 samples, belonging to a unique category: spices, herbs and vegetable extracts.

But health risks (vitamin losses, cytotoxic, genotoxic risks and risks of cancer due to the formation of new substances in irradiated foods) have not been seriously investigated so far and the scarce research material on the topic has either not been taken into consideration or discredited.

In 2002, a French German research team published a study⁷ on 2-alkylcyclobutanone (a substance which appears in fat-containing irradiated food). Thanks to a chemical process, they were able to select numerous enough and pure enough cyclobutanones to carry out toxicological research and to highlight toxic effects on cell cultures, bacteria and rats. This material is strongly suspected to induce harmful effects on human health (genotoxic and cytotoxic risks as well as colon cancer). The scientists stressed that reliable data are missing to measure the actual risk linked to irradiate food consumption and called for complementary research. In 2002, the SCF published a statement⁸ that comments the French German study (Burnouf and al.) and reaffirm the innocuousness of fat-containing irradiated food “based on the results of the large number of feeding studies carried out with irradiated food which formed the basis for the wholesomeness assessments of irradiated food published hitherto by IAEA/FAO/WHO”. The statement refers to a document dating back to 1981⁹ (this being mentioned only in the annotation). The SCF affirms that “it is not appropriate (...) to make a risk assessment for human health associated with the consumption of 2-ACBs present in fat-containing foods” because “the adverse effects noted refer almost entirely to *in vitro* studies...”. The researchers denounced this untruthful argument¹⁰ since the study referred to a *in vivo* test, with results obtained on rats, as acknowledged by the SCF in the same report¹¹

In its special report on food irradiation¹², the independent French review PRESCRIRE recently stressed the confidence of international organisations but also highlighted that uncertainties remain:

« According to scientific committees and international organisations which supported the research material, the results obtained allow ensuring that food irradiation does not induce problems of public health, when used in good hygiene conditions and according to the rules defined by *Codex Alimentarius*. However, several points are still under survey, regarding for example the possible toxicity of neoformed products, the radio resistance of some micro organisms and the degradation of several vitamins are still under study. Developed until recently under relative public disregard, food irradiation has nowadays opponents, especially

⁶ Cf. « Contrôle des denrées alimentaires susceptibles d'être décontaminées par traitement ionisant », DGCCRF, 28.03.2007

⁷ Burnouf D., Delincée H., Hartwig A., Marchioni E. Miesch M., Raul F. et Werner D., « Etude toxicologique transfrontalière destinée à évaluer le risque encouru lors de la consommation d'aliments gras ionisés / Toxikologische Untersuchung zur Risikobewertung beim Verzehr von bestrahlten fetthaltigen Lebensmitteln – Eine französisch-deutsche Studie im Grenzraum Oberrhein », Rapport final / Schlussbericht INTERREG II – Projet / Projekt No3.171, Berichte der Bundesforschungsanstalt für Ernährung - BFE-R--02-02, Karlsruhe (Germany); 2002

⁸ « Statement of the Scientific Committee on Food on a Report On 2-alkylcyclobutanones expressed on 3 July 2002”, Scientific Committee on Food, European Commission, Health & Consumer Directorate General, SCF/CS/NF/IRR/26 ADD 3 Final, 3 July 2002 (named by Lannoye/Denil) : <http://europa.eu.int/comm/food/fs/sc/scf>

⁹ WHO (World Health Organisation) (1981). Wholesomeness of irradiated food. Report of a Joint WHO/FAO/IAEA Expert Committee. Geneva. WHO Technical Report Series, No 659

¹⁰ « Comment on a statement of the SCF on a report on 2-alkylcyclobutanone », Burnouf D., Delincée H., Hartwig A., Marchioni E. Miesch M., Raul F. et Werner D. (July 2002)

¹¹ « promoter activity [of 2-ACBs] was seen after 23 weeks following administration of a colonic carcinogen to rats in relation to colonic tumour incidence»

¹² « L'irradiation des aliments. Deuxième partie : L'évaluation des bénéfices et des risques de l'irradiation des aliments. » ; La Revue Prescrire Juillet-Août 2006, Tome 26, N°274

in the United States of America and in France. While health authorities – in both countries – promote this technology to diminish the impact of food diseases. The study of this subject does not reveal major risks for human health due to food irradiation. However, uncertainties remain as to the long term effects of a large scale consumption of irradiated foods.¹³

On top of these risks for human health one should also consider the social and economic consequences in case of the generalisation of this technology: for jobs and local economies due to the delocalization of production; risks bound to nuclear plants and to the transport of nuclear materials, and risks linked to mass industrial production modes (pollutions, climate change, hazards for biodiversity and natural environments).

Considering the clear inefficiency of the European regulation, the lack of control on quantities marketed in the Member States, the uncertainties as to the innocuousness of irradiated food and external risks linked to an important use of this technology, we ask for:

- Significant controls by the Member States: common rules and obligations for controlling. In addition, sanctions should be taken towards countries which do not respect their obligations;
- Investigations on frauds;
- Harmonising the list of authorised products within the European Union, through withdrawing the present authorisations and enforcing the present short list (dried aromatic herbs, spices and vegetable seasonings) as the final list for all Member States;
- Granting funds for independent and transparent research on health effects of irradiated food consumption.

The signatory organisations listed below recommend the European Commission take this subject very seriously. We ask for a review of this file as soon as possible and we look forward to the follow-up given to our queries.

Yours Sincerely,

Action Consommation – **France**

Adéquations – **France**

Agir Pour l'Environnement – **France**

Les Amis de la Terre – **France**

Alliance for Social and Ecological Consumer Organisations (ASECO) – **Europe**

Associazione Consumatori Utenti (ACU) – **Italy**

Association for Food Safety and Consumer Protection (AFSCP) – **Czech Republic**

Bulgarian National Consumers Association (BNCA) – **Bulgaria**

Danmarks Aktive Forbrugere (DAF) – **Denmark**

Die Verbraucher Initiative – **Germany**

Hellenic Consumer Organisation (E.KAT.O) – **Greece**

Goede-Waar & Co Vereniging van Consumenten – **The Netherlands**

Lithuanian National Consumers Federation (LNCF) – **Lithuania**

Movimento dei Consumatori – **Italy**

MARTHA Förbundet – **Finland**

Sveriges Konsumenter i Samverkan (SKIS) – **Sweden**

The Food Commission – **The United Kingdom**

Vereniging voor Ecologische Leef – en Teeltwijze (VELT) – **Belgium**

Association Léo Lagrange pour la Défense des Consommateurs – **France**

Association pour l'Information sur la Dénaturation des Aliments et de la Santé (AIDAS) – **France**

¹³ translation from the original text in French

ATTAC – **France**
Biocoop – **France**
Collectifs Bure-Stop – **France**
Confédération Paysanne – **France**
CRiiRAD – **France**
Eco-Consommation – **Belgium**
Ecoforum – **France**
Editions Cultures Croisées – **France**
Ekwo – **France**
Fédération Nature et Progrès – **France**
Food and Water Watch Europe – **Europe**
Groupe de Réflexion et d’Action pour une Politique Ecologique (GRAPPE) – **Belgium**
International Coalition to protect the Polish Countryside (ICPPC) – **Poland**
Mouvement d’action paysanne (MAP) – **Belgium**
Mouvement pour les Droits et le Respect des Générations Futures (MDRGF) – **France**
Nature et Progrès – **Belgium**
RECit (Réseau des écoles de citoyens) – **France**
Réseau Sortir du Nucléaire – **France**
Tchernoblaye – **France**
World Information Service on Energy, WISE Amsterdam – **The Netherlands**

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