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HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL

Directorate D - Food Safety: production and distribution chain
D3 - Chemical and physical risks; surveillance

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COMMENTS ON THE DG SANCO CONSULTATION OF CONSUMER ORGANISATIONS, INDUSTRY CONCERNED AND OTHER INTERESTED PARTIES ON THE STRATEGY FOR COMPLETION OF THE POSITIVE LIST OF FOOD AND FOOD INGREDIENTS TO BE AUTHORISED FOR IRRADIATION TREATMENT (ANNEX OF DIRECTIVE 1999/3/EC)

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30.10.2000 – ECO Bureau Européen des Unions de Consommateurs (BEUC) Ave de Tervuren 36/4 B-1040 Bruxelles Belgium Tel. +32 2 743 1590 Fax +32 2 740 2802 consumers@beuc.org www.beuc.org	Food irradiation (FI) remains a sensitive issue for many consumers. Therefore, it should be applied in as limited a way as possible and under strict conditions only. Although the irradiation of several foodstuffs was cleared in several Member States (MS), only very few applications are actually in place. In UK there is only one company licensed to irradiate herbs and spices. In the NL the industry itself decided to prohibit irradiation, probably because of public pressure. Therefore only a small amount are irradiated. FI should not be used as a substitute for good hygiene practices and that there must be an obvious and reasonable technological need for it. A benefit for the consumer is crucial. FI should not be dangerous to health (in the case of toxins already produced in the food) and a bad quality product cannot be made better by using FI. We doubt that there is a real technological need for all products proposed. The proposed irradiation doses only secure a reduction of the bacterial count, and not an actual sterilisation. We are concerned about irradiated mechanically recovered chicken meat, offal chicken and egg white. It would probably give some consumers the impression that the product is safer. Therefore there is a risk that they will fail to take necessary measures to prevent cross-contamination. The fact that products could be unavoidably contaminated is not an adequate reason for FI and should rather be considered as a substitute for good hygiene practice. FI does not inactivate performed toxins in a given product. Irradiation of shrimps does not protect the consumer against food poisoning if the product is treated after it has been subject to a hygiene failure. There is a risk that the method will be abused by

[1] ECO = European consumer organisation
NCO = National consumer organisation
IIA = International industry association
EIA = European industry association
NIA = National industry association
OEA = Other European association
ONA = Other National association
IEG = International expert group
CO = Company
CS = Consultant
SC = Scientist/Scientific Institute
PR = Private person

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	'inferior' producers. Many consumers dislike FI - even if it may be secure from a health point of view. Foods labelled as irradiated might allow the consumers choice, however the market will probably restrict the products that are irradiated. FI should be allowed only if other methods used to prevent contamination or to enable decontamination cannot be applied in a reasonable way. High hygienic standards should be applied throughout the food chain and end product decontamination treatments, such as FI, should be restricted to cases where an adequate level of hygiene cannot be achieved. Routine detection methods should be made available to find out whether a product is irradiated.
31.10.2000 – ECO Euro Coop Communauté européenne des coopératives de consommateurs - European community of consumer cooperatives Rue Archimède 17 – bte 2 B-1000 Bruxelles Belgium Tel. +32 2 285 00 70 Fax +32 2 231 0757 Info@eurocoop http://www.eurocoop.org	Euro Coop does not agree with the list of products proposed. We are not opposed to irradiation, as proves our support to the authorisation of herbs and spices, but we believe that further authorisations should only be granted on a product-by-product basis under the following conditions: - foodstuffs must have a low contribution to food intake; - other methods of preservation fail to ensure products' safety; - there is a significant benefit to consumers; - FI is not used as a substitute for good hygiene. The products proposed do not respond to these criteria. Normal preservation techniques (cold storage, etc.) are adequate to ensure the safety of the products. The Commission discusses safety and hygiene at the wrong point of the chain and is not in line with the new holistic approach of the hygiene rules, covering all stages of the food chain. A perfect example of this wrong approach is the mechanically recovered chicken meat, which may be "unavoidably contaminated and needs to be decontaminated". It is possible to raise chicken in a salmonella-free environment. Priority should focus on improving food production at primary level, storage, manufacturing processes, etc. rather than on killing off contamination at the last stage. It may make the problem of food poisoning worse, if FI is being used to legitimate bad hygiene. Furthermore, we feel that: - Extended shell life of food products is not in the interest of

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	the consumer, but always in the producer's interest; - a reasonable technological need cannot be defined by the fact that a product is already irradiated in substantial amount in at least one Member State; Finally, some Euro Coop members are totally opposed to FI. Even in those countries where, e.g., irradiation of meat and poultry is authorised, Euro Coop members do not prove the need to have recourse to this process.
21.10.2000 - NCO Swedish Consumer Coalition (Sveriges Konsumenter i Samverkan) PO Box 88 S-577 22 Hultsfred Sweden Tel. +46 495-498 34 or -413 15; cellular: +46 70 604 77 25 Fax +46 495 498 35 info@konsumentsamverkan.se http://www.konsumentsamverkan.se	Points 1-10 basically reflect the view of consumers in Sweden. The total amount of food which is treated by irradiation should be kept small. While we have agreed that certain herbs and spices may be irradiated if necessary, there is no need to include "dried fruit "and "flakes or germs of cereals". The latter are often considered as "health foods" such as muesli, and this image would be confused. The image of normal dried fruits and flakes or germs of cereals may be tainted and misperceived as dangerously contaminated. "Health foods" such as muesli should not need to be de-contaminated at all. Frog legs is a typical example of foods that is taken from countries under development to feed the rich world and that needs special treatment to be edible at all. Peeled shrimp should not be included. A product from the oceans should not be mishandled by a processing industry in such a way that it becomes contaminated. If temperatures are kept at low and proper levels at all stages of transportation, storage, peeling and production, how can the shrimp be infected by any harmful micro-organisms? If FI will be allowed, many producers will decrease their efforts to keep a high level of hygiene. Industrial chicken production is a messy business, and we cannot agree to support this type of irradiation for animal welfare reasons. If this kind of production can´t do without irradiation, it should not be continued at all. Irradiation should not be a tool for allowing dirty production. Irradiation plants are expensive and will be a weapon only for the big transnationals to eliminate smaller and local

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	productions
26.10.2000 - NCO Die Verbraucher Initiative e.V. Elsenstr. 106 D-12435 Berlin Germany Tel +49 30 53 60 73-3 Fax +49 30 53 60 73-45 mail@verbraucher.org www.verbraucher.org	FI is not necessary if good hygiene rules are applied. The statement of the SCF that "FI must not be used to cover negligence in handling foodstuffs or to mask their unsuitability for use as food" is supported. The fact that a product is irradiated in one MS is not an argument for the technological need. The latter would only be given if other preservation methods fail to achieve health protection of consumers. Good hygienic practises must be given first priority. FI for decontamination after is rejected. The latter does not ensure consumer's safety but opens for producers the door to FI.
3.11.2000 – NCO Kuluttajat-Konsumenterna ry. The Consumers Kasöörinkatu 3 B FI-00520 Helsinki Finland Tel/Fax +358 9 8775 0120 kkry@kuluttajat-konsumenterna.fi www.kuluttajat-konsumenterna.fi	We do not fully agree with the introduction paragraph of your consultation paper: The situation is by no means "confusing for consumers or detrimental for the functioning of the internal market". Everywhere, where the consumers are aware of FI, they try to avoid such products. In Finland, we accept the treatment of herbs and spices. Being aware of inferior production methods in some countries, i.e. for frog legs and shrimps, we suggest that the importers either refrain from those imports or definitely demand other collection methods. In relation to a luxury commodity like frog legs, the combination of child labour and cruelty to animals is disgusting! We suppose that the situation is different in frog farming. Improving the hygienic conditions during production is better than FI afterwards. The additives ought to be specified, now the group is too big. Gum arabic, at the most, might be accepted because of harvesting circumstances. We oppose the prolongation of the positive list.
31.10.2000 – NCO Consumers in Europe Group (CEg) David Alexander Food Policy Officer	CEG supports the Commission's intention to integrate food safety policy from farm to table, the re-casting of food hygiene legislation that aims to introduce HACCP and to improve overall standards of food hygiene. FI should only be applied if other methods are not available or possible. FI should not be used as a substitute for poor hygiene

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20 Grosvenor Gardens London SW1W 0DH UK Tel. +44 20 7881 3021 Fax +44 20 7730 8540 ceg@ceg.co.uk www.ceg.co.uk	practices. High standards of hygiene should be routinely applied throughout the food chain and end-product decontamination, such as FI, should be restricted to those cases where an adequate level of hygiene cannot be achieved. The proposed strategy is based upon the conditions for authorising irradiation set down in Directive 1999/2/EC. There is a need to explain more clearly how these conditions are consistent with the overall food hygiene strategy. The arguments to demonstrate compliance with these conditions are, in some cases, vague and lack transparency. A benefit can not necessarily be assumed to derive from prolonged shelf-life. Also not necessarily the price of treated products will decrease. FI is not a low-cost method. A clearer definition of 'reasonable technological need' should be given. Is it a consumer need or an industry need? The argument, that this criterion is satisfied by the fact that a product is irradiated in 'substantial amounts' in one MS, is weak. Much greater quantities of the same unirradiated product may be consumed in other MS. The development of a technology does not always indicate that there is a real need for it. It is not clear that all the proposed products meet all of the criteria set down in the Framework Directive. The need for the different treatment and handling of frozen herbs, dried fruit and cereal flakes/germs intended for use in compound foodstuffs compared to those intended for use by the final consumer has not been made clear. Neither is the need for irradiation of peeled shrimps clear when the only shrimps to be found on sale in the UK are unirradiated. CEG strongly supports the labelling requirements. However the statement, that analytical control of labelling is possible at the level of the final products, is slightly misleading. Many of the tests developed are not able to unambiguously detect irradiated ingredients below a certain limit of detection. Given the limitations of sensitivity of the existing tests, CEG considers that documentary control and traceability may be a more reliable basis for enforcement.

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31.10.2000 – NCO Movimento dei Consumatori Giulio Labbro Francia Viale Venezia 7 I-30171 – Venezia Mestre Italy Tel. +39 41 938 092 Fax +39 41 520 2123 modicum@iol.it www.dialogon.it/mdc	It would be advisable that FI may be authorised only "if all four conditions set out are met". Certain words are not defined accurately and leave too broad interpretations. E.g., when is a technological need reasonable? We suggest that "reasonable technological need" is specified by "generated by a demonstrable insufficiency in relation to current good practices, by the inability to improve them and by a demonstrable or likely risk to the consumer which is higher than the present risk and not dependent upon the consumer's responsibility". In relation to "no hazard to the health of the consumer", there is a case for asserting the principle of precaution, until medium and long-term tests on superior mammals are made compulsory, before putting products, on the market. The word "benefit" is too generic. All goods may be of benefit to the consumer: we suggest adding "higher" benefit. We suggest to add "in that it improves the hygiene and health condition and extends its shelf life without affecting its organoleptic and nutritional characteristics". With regard to points 3, 4, 5 and 6: FAO, IAEA and WHO have always tried to promote FI. Not all data supplied by the FAO/IAEA/WHO are reliable, either from the point of view of the losses and changes to organoleptic and nutritional components, nor of data concerning toxicity which are missing from the medium and long-term tests. The report published by WHO in 1999 contains exaggerated conclusions: "any dose appropriate to achieve the intended technological objective is both safe and nutritionally adequate" is an absurd and misleading statement unless related to every individual foodstuff. It would be wise to leave the positive list open so that every time it is deemed useful to authorise the irradiation of a foodstuff it can be first checked that all the procedures and instruments are standardised and recognised. The "luminescence" techniques are not appropriate for revealing treatments designed to mask products which cannot be marketed because they have gone off. Documentary evidence can never be reliable unless there is a painstaking and stringent certification process.

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	Point 7, 8 and 9 endeavour to justify the use of FI to prolong the life of products which are already on the market and which present health and hygiene risks directly proportional to the care put into the production process. Improving the production process control and keeping the consumer vigilant and informed would in our view provide sufficient guarantees for postponing the compilation of the positive list. With regard to point 10, we do not share the conclusions of the first paragraph, firstly because the economic advantage is very uncertain and it is therefore misleading to highlight it, and secondly because it has nothing to do with safety. It is beyond common sense to argue that it is enough for a Member State to have opted to use irradiation technology for it to be considered as a technological need. The reasons given in the third paragraph cannot be shared because it is an endeavour to facilitate the introduction of ingredients which are today used but which have a short shelf life. To prolong this shelf life would give the consumer no advantage and would not make any sense because the less preserved foods are better, while the producer could reduce the rigorous control procedures. We do not agree that the ingredients listed in point 11 should be included. Although used in moderate quantities of products in certain EU countries, especially as the logical consequence of a policy for developing nuclear energy production, irradiation of foodstuffs has no justification, not only because it is not logical in the light of the denuclearisation policy commenced by the European Commission, but especially as, unlike the developing countries, the EU already has an advanced system of good hygiene and health practice (HACCP). To broaden the authorisation of irradiation to all products on which the SCF has already given a positive opinion would be an indirect *de facto* authorisation to drop the systems based on HACCP. For not a single one of these products proposed for irradiation can a “reasonable” technological need be found. The Commission should produce for each product figures showing the number of incidents which have given rise to notifications, admission to hospital or fatalities amongst consumers despite good production practices. But even if there were data which

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	might justify a reasonable technological need, the procedure should still consider the individual product, with priority on the imposition of the best available technology in the specific sector already used successfully without risk to consumer health.
27.10.2000 - NCO (non-EU) Croatian Association for Consumers Protection /CACP/ Mr. Ph. Zdenka Kocmur Food Safety Project Coordinator fiaminova@hotmail.com delicija@zg.tel.hr	We have very good and very long experience in our country about FI. Food ingredients, but also some foodstuffs were treated with very good results and without any danger on human health. FI is regulated with our rigorous food technology and hygienic laws and regulations and used for: - Reduction and elimination of microorganisms in spices and dried health and other plants - Reduction of the microorganisms in food ingredients - Elimination of microorganisms in some foodstuffs, especially salmonella in eggs and meat products.
27.10.2000 – IIA AIII Association Internationale d'Irradiation Industrielle P. Dardenne T. Sadat Parc Technologique Gemini II, Route de l'Orme F- 91195 Saint Aubin France Tel +33 1 69 35 24 00 Fax +33 1 60 19 10 32 PDardenne@griffith.be thomlinac@aol.com	The strategy proposed is supported; however, we disagree with the omission of products for which the SCF gave a favorable opinion. Concerning point 12: In 1998, 559 tons of blood products were irradiated in France (official figures DGCCRF). In the NL about 200 t of blood products are irradiated per week for the feed market. In the past, large quantities were irradiated for the food market, but this is no longer allowed. There is a technological need to irradiate blood products. We request that blood products are included. The endorsement of the Montreal Protocol will increase the need for ionizing radiation for disinfestation and quarantine treatment of bulk crops. Fresh fruits, vegetables and cereals are always treated by fumigation but casein is irradiated in F, and herbs and teas in B. The interpretation of low treatment volume as a good indicator of no technological need is incorrect. Social, environmental and economic factors have an overwhelming power over technological need, scientific endorsement and consumer benefit. Trade barriers to the import of irradiated product have a big influence on treatment levels. Red meat and poultry should be included. Constantly food poisoning cases due to E. Coli contamination are reported.

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	Fish and shellfish are also sensitive products. To "improve the hygienic conditions during the production of these foodstuffs", is not enough in itself to avoid the outbreak of illnesses caused by Salmonella, Listeria, Campylobacter or E. Coli 0157:H7. FI is a self-limiting process: high dose treatment increases costs and reduces the sensory qualities making it unacceptable to the manufacturer. 3 criteria to justify inclusion are mentioned: benefit for the consumer, reasonable technological need and no substitute for good hygienic practices. There are many products intended for the final consumer which could satisfy these 3 criteria, as it will replace current techniques (e.g. less vitamin loss, less change in taste/color/etc., no chemical residues, etc.) and offer for many products a possibility of treatment in the final packaging (no re-contamination). FI will not replace good hygienic practices, but will add positively to the Hazard Analysis Critical Control Point Programme (HACCP) and will add an extra safety for the consumer. Consumer concern is one of the major reasons for limiting the use of FI. However, the consumer should be given the freedom of choice to buy, e.g., irradiated red meat or poultry (buying irradiated poultry is advised by the WHO). In the US the application of FI is currently growing The safety and nutritional adequacy of irradiated food are recognized by the scientific community. There is no justified reason to prohibit/restrict the import of irradiated foods in the EU. The WTO (SPS and TBT) and the Codex General Standard for Irradiated Foods will play an important role. All products to which the SCF has given a favorable opinion and which are currently approved in any one of the MS must be included. Harmonization of EU legislation is necessary but it should reflect the state of knowledge and be in conformity with internationally accepted Standards, Codes and Guidelines. If a free and informed choice is given, many consumers will buy an irradiated product to minimize the risks (pathogens, chemicals, etc.), associated with some food products.

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2.11.2000 – EIA Confédération des Industries Agro-Alimentaires de l'UE (CIAA) R. Destin Director General D. Taeymans Director, Scientific & Regulatory Affairs Ave des Arts 43 B-1040 Bruxelles Belgium Tel. +32 2 514 1111 Fax +32 2 511 2905 d.taeymans@ciaa.be http://www.ciaa.be	FI is not a priority for the Food and Drink Industry (FDI). Though the FDI believes that this technology can offer genuine food safety benefits, it is unlikely that food manufacturers will make use of this technology until such time as consumer confidence in the technology is secured. CIAA fully supports the three main criteria on which the proposed strategy is based, particularly the fact that FI should not substitute good hygiene practices. In line with this last criteria, CIAA wonders how consumer confidence in FI will be secured in Europe if the applications listed under para 8 and 9 are allowed. Several food manufacturing sectors (meat, dehydrated fruits, cereal flakes, tea) have indicated that they were not in favour of allowing ionising radiation to treat their products to avoid it is used to substitute good hygiene practices and therefore lead to unfair trade practices. It will therefore be appropriate to carefully consider any proposal to extend the list of foodstuffs authorised for irradiation. Any extension of the list should be accompanied by an information campaign to reassure consumers about the safety of the technology and the foods to which it is applied.
26.10.2000 – EIA CLITRAVI Liaison Centre for the Meat Processing Industry in the EU Blv Baudoin 18 (Bte 4) B-1000 Bruxelles, Belgium Tel. +32 2 203 51 41 Fax +32 2 203 32 44 devries@skypro.be	CLITRAVI's longstanding position is that the organisation remains against the decontamination of fresh meat, poultry meat and meat products by ionising radiation. We believe that good hygienic practices, taken up in HACCP systems, should get first priority to improve the hygienic conditions along the meat chain.
30.10.2000 – EIA Union Européenne du Commerce du Betail et de la Viande (U.E.C.B.V.) JL Mériaux Secretary General	UECBV agrees on the approach. At present, fresh red meat should not be included. It would seem premature regarding the high level of hygiene rules in EU, the current method of irradiation which denatures the taste of fresh red meat and the consumers who are not ready to accept. In the future, as the SCF expressed a positive opinion, and if in certain circumstances it appears useful, the use of

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Rue de la Loi 81 A, Bte 9 B-1040 Bruxelles Belgium Tel. +32 2 230 4603/4855 Fax +32 2 230 9400	irradiation for certain meats (as, e.g., processed meat) should be re-examined taking into account all relevant criteria.
28.11.2000 – EIA Europatat European Union of the Potato Trade Romain Cools Secretary General Rue de Spa 8 B-1000 Bruxelles Belgium Tel. +32 2 238 0620 Fax +32 2 238 0408 europatat@kmonet.be	The irradiation of potatoes within the EU and in most of the countries of non EU members of Europatat is not practised due to economical and quality reasons. Potatoes need not to be included.
31.10.2000 – EIA Association des Industries des Fruits et Legumes Deshydrates de la CEE (AIFLD) P. Keppenne Secrétaire Générale Ave de Roodebeek, 30 B-1030 Bruxelles Belgium Tel. + 32 2 743 87 30 Fax +32 2 736 81 75 aifld@sia-dvi.be	L'AIFLD regroupe les entreprises communautaires de la déshydratation de fruits et légumes. Les industries communautaires que nous représentons partagent pleinement la stratégie que vous exposez. En aucun cas, le traitement par irradiation ne peut servir à corriger l'absence de bonnes pratiques hygiéniques dans la production de fruits et légumes déshydratés. L'irradiation doit donc répondre à un besoin technologique réel et servir le consommateur. En conséquence, nous vous invitons à ne pas inclure dans la liste positive des autorisations les fruits déshydratés, ni les flocons de fruits. En effet, il existe, dans notre secteur, des alternatives efficaces à ce traitement par irradiation. La mise en place de bonnes pratiques de fabrication suffit à garantir au consommateur des qualités hygiéniques irréprochables. Trop souvent, nous avons été amenés à constater que l'irradiation se substituait à un processus correct de déshydratation. Nous sommes d'avis que la réglementation communautaire ne peut, en aucun cas, sanctionner ces pratiques en leur offrant les moyens d'une concurrence déloyale vis-à-vis des produits

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	obtenus dans le strict respect des règles hygiéniques les plus élémentaires.
11.10.2000 - NIA Milchindustrie-Verband Eckhard Heuser Adenauerallee 148 D-53113 Bonn, Germany Tel. 01722414574 Tel. +49-228-95969-24 Fax +49-228-371534 heuser@milchindustrie.de	There is no technological need to irradiate casein. It would only substitute good hygienic practices. In addition the authorisation of casein would affect negatively the image of the milk industry in Europe. We ask therefore not to authorise the irradiation of casein/caseinates.
26.10.2000 – NIA Dutch Fish Product Board Dr L.J. Zijp Productschap Vis Postbus 72 NL-2280 AB Rijswijk The Netherlands Tel. +31 70-3369605 Fax +31 70-3999426 lzijp@pvis.nl	Irradiation of raw fish and raw, uncooked fishery products should never take place as these products are always cooked, or at least sufficiently heated by the final consumer or in the catering business. Processing techniques and processing circumstances in the industry should always be so that contamination can be avoided. There is an increasing tendency to import shrimps either raw unpeeled or peeled in the raw state. The latter category is cooked in the factories of the importing companies, so ensuring a product of a high micro-biological standard. However when shrimps are cooked in the unpeeled state and then peeled these shrimps maintain a better appearance and taste. Due to the peeling by hand in the country of origin these shrimps may obtain a higher level of bacteria. Most of these shrimps are used as an ingredient for salads, which should have a reasonable shelf-life. The latter applies also to cooked and peeled crayfishes used for salads. The clients using shrimps for these products require severe bacterial logical conditions, far beyond normal consumer safety levels. The cooked and peeled shrimps can be pasteurised on their arrival in Europe. However they arrive deep-frozen and have to be thawed, pasteurised, and then frozen again, making the end-product inferior as it is a double frozen product. The products concerned need to be in a state which is, from a bacteriological point of view, acceptable, so that FI cannot act as a treatment to cover up negligence in the handling of the

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	product. Therefore, before the application of irradiation, a micro-biological analysis and an organoleptical check are to be made to ensure that they are safe as such and no cover up of unhygienic practices occurs. We would like to see on a positive list: Warm water shrimps (cooked and peeled) 3 kGy Frog legs 7 kGy Crayfishes(procambarus clarki)(cooked and peeled) 3 kGy Cold water shrimps like crangon crangon should not be included. FI should only be applied to fully wrapped and sealed products of which the wrapping is only to be opened by the manufacturer of the end product or the final consumer. Although irradiation of shrimps is not taking place at a wide scale, the possibility to treat cooked and peeled products, used as ingredients can in some cases add to the manufacturing of safe products with a reasonable shelf-life.
31.10.2000 – NIA Bundesverband des Deutschen Lebensmittelhandels e.V. (BVL) Ulrich-von Hassell-Str. 64 D-53123 Bonn Germany Tel. +49 228 91 92 00 Fax +49 228 91 92 010 bvl@einzelhandel.de	According to the Directive, FI should be mainly applied to reduce undesirable microorganisms, insects and parasites. Concerning the inhibition of sprouting and the delay of ripening, it should be carefully considered whether these applications are necessary. Sprouting and ripening are natural processes which allow the consumers to judge about age and freshness of products. Through irradiation consumers might be mislead and, therefore, FI for the purpose of inhibiting sprouting and delay of ripening should be allowed only in a restrictive manner or should be prohibited.
10.11.2000 - OEA Leatherhead Food Research Association Dr. David Kilcast Research Co-ordinator Randalls Road Leatherhead	We have over 750 food industry members in EU countries and have had a long relationship with the food industry in the EU on FI. We do not agree with the proposed strategy: 1. The positive list focuses on ingredients used by the food industry considered to be of high risk. There are no problems with the items included in this list. 2. Other items on the SCF list are excluded on the grounds of insufficient technological need. Limited current use of FI is

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Surrey KT22 7RY UK Tel. +44 (0)1372 822321 Fax +44 (0)1372 386228 dkilcast@lfra.co.uk	likely to be a consequence of prevailing factors unrelated to technological need. In UK legislation, use of FI to extend the shelf-life of fruit is categorised as an acceptable technological need, and there are no scientific reasons not to include applications for shelf-life extension, inhibition of sprouting or disinfestation. 3. Fresh meat (not on the SCF list) and poultry: Whilst it is undisputed that the primary measures should be improvement of good hygiene, it is clear that EU countries are many years from achieving this, and it is most unlikely that hygiene measures alone will be sufficient. Cases of Campylobacter infection of poultry are continuing to rise, and the USA is finding hygiene control ineffective in stemming the problems associated with E. coli O157 contamination of ground beef. It is vital that poultry is included (as both an industrial ingredient and as supplied to consumers), and the US experience is showing that it is essential to include beef also.
31.10.2000 - OEA Federation of Veterinarians of Europe (FVE) Pierre Choraine Executive Director 1 rue Defacqz B - 1000 Brussels Belgium Tel. +32.2.538.29.63 Fax +32.2.537.28.28 p.choraine@fve.org www.fve.org	FVE does not object to the intention to irradiate special raw food. However, FI should be strictly limited to those foodstuffs, where the correct implementation of general and specific hygiene measures is not sufficient to guarantee a high level of consumer protection. The listed products may present a risk from the hygienic point of view but improving hygiene during earlier production stages and throughout the whole processing would be a better approach. Fresh red meat, poultry, mechanically recovered chicken meat, offal from chicken and egg white should not be included. The emphasis should instead be placed on the implementation of HACCP in slaughterhouses and meat processing plants and on the development of assurance schemes at farm level. An increased microbiological risk may be associated with frog legs and peeled shrimp imported from third countries. In these cases, consumer protection might indeed benefit from FI. The positive list must be regularly re-assessed as techniques evolve rapidly. If the positive list is too widely opened, it would result in consumer rejecting FI, which would not contribute to restoring consumer confidence in food safety. FI

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	must therefore be seen as a default choice when no other approaches are technologically suitable. A common EU positive list is welcomed as it will provide for an equal level of consumer protection throughout EU.
27.10.2000 - ONA British Medical Association (BMA) Mr M J Lowe Mr W A Glen Tel. +44 20 7383 6103 Tel. +44 131 662 8106 Fax +44 20 7383 6565 awhiskin@bma.org.uk bglen@bma.org.uk	The argument that some products are irradiated in substantial amounts in one member state is not an indicator of technological need. On the contrary, the fact that only one or two MS feel a product should be irradiated indicates that there is no technological need for the process. The main indication for irradiation for the products set out in point 11 as examples for inclusion in the positive list is to cover up sloppy or unsafe practices by food producers. The proposed strategy would encourage food producers to lower food safety standards because any degree of contamination could be compensated by irradiation. FI should be restricted to dried aromatic herbs, spices and vegetable seasonings.
31.10.2000 – ONA Soil Association – Organic Standards UK	The organic movement is concerned with the links between food production methods, health and the environment. We are the main certifier and promoter of organic food and farming in UK. We are opposed to FI. The fact that some products are irradiated in substantial amounts in at least one Member State is not an indicator of technological need. There is no need for FI in a genuinely sustainable, healthy agricultural system. Irradiation damages food by breaking up molecules and releasing free radicals that can destroy vitamins and enzymes. When combined with existing chemicals (e.g. pesticides), these can form toxins such as benzene, formaldehyde and lipid peroxides. Studies on animals fed irradiated foods have shown increased incidence of tumours, reproductive failure and kidney damage. FI therefore presents a serious health hazard to humans and animals, the total long-term effects of which are unknown. It will neither remove pesticide residues from food products, nor address the issue of reducing the amount of pesticides used in conventional agriculture. Irradiation is not of benefit to the consumer: 95% of bacteria are killed through irradiation, 5% are NOT killed. Viruses are

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	not eradicated and it can create ideal breeding conditions for carcinogenic aflatoxins and botulism. FI can also kill off beneficial bacteria. That irradiated foods have a longer shelf life, benefits distributors and retailers, rather than the consumer. Consumers are more concerned with the nutritional content. Prolonged storage time will increase the amount of vitamins lost through FI. Use of this process will also encourage increased international transportation of food and subsequent damage to the environment and local food markets. After production food should be treated in a way that retains the highest possible nutritive value in the finished product. There is evidence to suggest that FI destroys 20-80% of essential vitamins, in addition to those destroyed through cooking and processing. The cost of regulating, monitoring and administrating the greater use of FI will be significant. In addition, the potential long-term environmental and health risks associated with FI will inevitably increase the costs of environmental clean-ups, food hygiene scares, transportation and to the National Health Service. Thus, claims that FI could potentially reduce the price of products are misleading and unhelpful. 71% of survey respondents perceived the risks of FI to outweigh the benefits. There is therefore little potential market value of food that has been irradiated. A policy to increase the use of FI will only contribute to the loss of consumer confidence in the standards of food production. FI will be used as a substitute for good food hygiene and agricultural practice. It may also conceal imported food from countries with lower sanitation standards and that which would normally be considered unfit for human consumption. Priority should be given to preventing contamination of foodstuffs and developing healthy agricultural systems such as organic farming, rather than the decontamination of food products afterwards. There is no place for FI in a sustainable and healthy food production system.

Date - representing[1] name, address	**Comment** (most comments have been shortened)
31.10.2000 – ONA The Halal Food Authority (HFA) Bait al-Mal al-Islami Masood Khawaja President 109 Fulham Palace Rd Hammersmith London W6 8JA UK Tel. +44 20 8563 1994 Fax +44 20 8563 1993	HFA has always maintain that food should not be irradiated unless it is absolutely necessary for increasing shelf life or reducing health hazards. Irradiated food must be labelled. FI should only be allowed as indicated in Directive 1999/2/EC. FI should not cover negligence in handling or to mask the unsuitability of food. HFA agrees with all the sections in their entirety as proposed in the "strategy positive list" from the point of view of benefit for the consumer, general hygiene, good hygienic practices in production and to meet any new technological demands or the expediency of machinery. Assurance of general food safety would be an added advantage and a bonus. From the point of the Muslim dietary laws, foods have to be halal or permissible to consume, pure and wholesome and with no ill after effects to the user now or to the future generations.
18.10.2000 – ONA Panel on Gamma & Electron Irradiation Dr. P Sharpe Chairman 525 Chesham House 29-30 Warwick St London WIR 5RD UK Fax +44 20 7432 0516	Members of our panel are from industry and governmental bodies with diverse interests in radiation processing. Irradiation is an effective and safe process with potential benefits to human health. The strategy proposed for drawing up the positive list is supported; however, your general interpretation of low treatment volume as a good indicator of no technological need is incorrect. This argument should be reviewed to ensure that decisions are based on objective scientific criteria related to the benefits and effectiveness of the process. Irradiation can ensure the safety of red and poultry meat.

Date - representing[1] name, address	**Comment** (most comments have been shortened)
12.1.2001 United States Government USDA U.S. Mission to the EU Office of Agricultural Affairs Bruxelles Belgium Tel. +32 2 508 2760 Fax +32 2 511 0918 www.useu.be/agri/usda.html	See Annex I.
31.10.2000 – IEG International Consultative Group on Food Irradiation (ICGFI) Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture International Atomic Energy Agency Prof. Azhar Djaloeis ICGFI Chairman Dr. P. Loaharanu ICGFI Secretary Wagramerstr. 5 P.O. Box 100 A-1400 Wien Austria Tel. +43 1 2600 21638 Fax +43 1 26007 P.Loaharanu@iaea.org www.iaea.org/icgfi/	See Annex I.
23.10.2000 – CO Gammaster Provence SA P. Neyssen	See comment of AIII. In addition: With regard to the benefit of the consumer, many irradiated final products offer reduced health hazards (microbiological and chemical), prolonged shelf life, reduced prices, etc.

Date - representing[1] name, address	**Comment** (most comments have been shortened)
General Manager Min 712 Arnavaux F-13323 Marseille Cedex 14 France Tel. +33 4 91 214 214 Fax +33 4 91 214 215 info@gammaster.fr	Irradiation should not be used to substitute good hygienic practices, but with regard to this aspect irradiation is just one of the many preservation techniques (is pasteurization a substitute for good hygienic practices?). With regard to poultry: Since about 15 years every 3-4 years the Dutch consumer organization (Consumentenbond) published an article that a large percentage of the poultry for sale is contaminated with pathogens. Always it is concluded, that this is not acceptable and that measures should be taken. Nevertheless, the measures taken had minimal impact and the situation is still more or less the same. Although good hygienic practices are very important it will never result in the same guarantee as a treatment of the end-product (e.g. see production sterile pharmaceutical and medical products, where whenever possible a treatment of the end-product is required). This is also an important reason why all milk is at least pasteurized. Irradiation will not replace good hygienic practices, but will add (like other preservation technologies) an extra safety measure to offer safer products to the consumer. Consumer should be given the freedom of choice. There will always be consumers who prefer more traditional ways. Some people buy « farm-fresh » milk. Many households have no microwave oven. This reflects our individual views and right of choice. People must be allowed free choices, particularly when the weight of evidence indicates a benefit for a particular product or technology. And there is little doubt that the reduction of food borne diseases is an immense benefit. For the amounts irradiated in France between 1996 and 1998, see Table in Annex II.
18.10.2000 - CO APC EUROPE, S.A. Javier Polo R&D and Q.A. Director Tarragona 161 12ª Planta 08015 Barcelona Spain	APC Europe S.A. produces nutritional and functional protein derivatives for human and animal consumption from animal blood. The blood is collected in inspected EU approved facilities. To permit irradiation of blood products would provide an additional measure of safety. Due to the functional properties of blood derivatives, these products can not be submitted to high heat treatment like liquid pasteurisation or UHT. While spray drying does provide

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Tel. +34 93 292 53 00 Fax +34 93 292 51 95 javier.polo@ampc-europe.com	a pasteurisation like function, a more definitive and measurable destructive process is requested, which will assure the safety of our products. Irradiation would best serve this need. Also, these blood derivatives products can not be submitted to any hygienically treatment by extreme pH reduction because the gelation properties. Other forms of treatment such as ultraviolet radiation have been explored, however, due to the fact that the transmittance (inverse of absorbancy) of blood products is poor, no appreciable improvements in microbiological quality results. Only in France irradiation of blood products is authorised. A much greater use of irradiation for blood products would have occurred if other MS had approved its use.
31.10.2000 - CO Division Lactalis Industrie Groupe Lactalis Voisin Bernard Le Directeur Marketing Tel. +33 2 99 26 64 24 bernard.voisin@lactalis.fr	La Division LACTALIS INDUSTRIE du Groupe LACTALIS n'est pas favorable à l'ionisation des caséines et caséinates, qu'ils soient d'origine communautaire ou de pays tiers.
18.10.2000 – CO Société Civile d'Etudes et de Recherches dans le Domaine des Technologies d'Innovation Pierre Vidal 59, route de Paris F-69260 Charbonnières-les Bain France Tel. +33 4 7887 1853	Various studies and research carried out over more than 50 years, as well as practical applications, have demonstrated that ionization is a reliable, sure and efficient process, easy to apply. Industrial ionisators are completely reliable, automated and continually controlled. Their implantation, with the numerous laws, rules and authorizations that govern them, cannot escape any control. Normalized dosimetric methods, with protocols of use and equipment, assure the certainty of obtaining the minimum dose of ionizing radiation necessary to reach the goals aimed at while using ionization. The main results of ionization are a better food conservation and a lengthening of consumer date limits, while at the same time assuring consumers of a very important improvement in food security, for example in the case of contamination by pathogenic germs. Ionized food commodities are not

Date - representing[1] name, address	Comment (most comments have been shortened)
	poisonous, don't carry any risk to consumers' health and preserve their original qualities, especially those which are nutritional. All the above-mentioned elements are recognized throughout the world, in particular by the specialized scientific world, WHO, FAO, IAEA, Codex Alimentarius. For consumers, ionization assures a large improvement in food security, for example with regard to contamination by pathogenic germs, contamination by bugs and their larvas and possible infestations (taenia, tapeworms, etc.). Ionization is done on food products either separately or tightly wrapped. There is practically no appreciable increase in temperature during ionization. Numerous food companies are ready to use ionization as soon as the incomprehensible dynamism of continual non justified opposition comes to an end. It is regrettable that for many years governments, and the European Community, have continually opposed, without valid motives, the ionization of food products, basing their opinions on non valid arguments and affirmations. The two of the European Community documents mention that ionization must not be used on poor quality foods or whose sanitary condition is doubtful. This is the same for any treatment of food products. The European Community and governments take on very serious responsibilities in permitting the consumption of products which are unfit for consumption due to microbial contamination (pathogenic germs), while a recognized non poisonous procedure, which does not damage the qualities of food products, nor the health of consumers, is forbidden. This is a serious case of lack of help to people in danger, among other findings some could say by poisoning, as has been seen earlier and in other circumstances. This situation is brought out by the important quantities of food commodities which are destroyed, by the number of consumers who are poisoned, or die, by the closing of factories, by the wrongful indictment of industrials who have, however, conformed to the hygiene and sanitary conditions in force. The consumer has the right to choose the food that he wants to consume. Currently, no-one can choose between non ionized food, and food which is ionized and which is far superior. What is more, with ionization, the consumer is assured of a really big

Date - representing[1] name, address	**Comment** (most comments have been shortened)
	improvement in food security. The official figures published concerning food poisoning are not reliable, and this has been demonstrated in numerous publications. These official figures are very, very, very much underneath the reality.
12.10.2000 - CS Dr C.J.P. Saunders Consultant in Public Health Medicine FiFE Health Board Springfield House Cupar, Fife KY15 5UP, UK Tel. +44 1334 656200 Fax +44 1334 652210 donna.shand@fife-hb.scot.nhs.uk	FI should be restricted to current products of Directive 1999/3/EC. It is not an indicator of technological need if a product is irradiated in substantial amounts in one MS, on the contrary. The authorisation of products as proposed would cover up sloppy or unsafe practices. It would encourage food producer to lower food safety standards.
30.10.2000 - SC Institute of Food Research Norwich Research Park Catherine Reynolds Head of Communications Colney Norwich NR4 7UA UK Tel. +44 603 255217 Fax +44 1603 255168 catherine.reynolds@bbsrc.ac.uk www.ifr.bbsrc.ac.uk	The safety of irradiated food has been demonstrated thoroughly. A WHO report in 1999 stated "The substantial benefit to food safety and food availability that would accrue directly from the broad application of FI requires that steps be taken to put this technology into wider practice". Foods which have been approved in the UK should be included (fruit, vegetables, cereals, bulbs and tubers, spices and condiments, fish and shellfish, and poultry). There is a need to develop a dialogue with the public on the value of FI. In the US irradiation has been approved to: control insects in wheat and flour, delay sprouting in white potatoes, control *Trichinella spiralis* in pork, delay maturation, inhibit growth and disinfect foods including vegetables and spices, control salmonella and other food borne bacteria in poultry, treat refrigerated or frozen, uncooked meat, meat byproducts, control Samonella in fresh shell eggs. It has been proposed to authorise irradiation of molluscan shellfish and fruits and vegetables imported into the US. FI could help to overcome quarantine barriers in trade with fresh fruits and vegetables. There is a risk of the transfer of insects and diseases on fruit from some parts of the world. Until recently the fumigant methyl bromide (MB) was used to

Date - representing[1] name, address	Comment (most comments have been shortened)
	kill pests on fruit. It has been classified as a Class 1 ozone-depleting substance and its use in the US will be banned on January 1, 2001. Irradiation was reported to be the only alternative treatment that could be applied to a whole range of fruits. The FDA has approved irradiation of fruits, vegetables and grains to a maximum dose of 1kGy for disinfestation. Irradiation is enabling the movement of many exotic fruits into the US mainland that could not be done earlier due to the lack of available treatment methods. These considerations illustrate issues that may arise in relation to the import of fruit and vegetables that may carry insects and pathogens capable of affecting crops in the UK and in Europe. The full version of this response is on the web site: http://www.ifr.bbsrc.ac.uk/science/consultations
13.10.2000 - SC Dr. Keith Jones Department of Biological Sciences Lancaster University Lancaster LA1 4YQ, UK Tel. +44 1524 593993 Fax +44 1524 843854 k.jones@lancaster.ac.uk	For poultry the degree of microbiological contamination depends from the season. FI may be more necessary at different times of the year. Sewage sludge and farm slurries can contaminate crops. FI might help to decontaminate especially crops sold at farm or local level.
8.11.2000 - PR Laurent Cordier Cergy Pontoise France launacor@club-internet.fr	According to the consultation paper, FI seems to be safe. I do not have any trouble with it. So I do not understand why you want to limit its use. It is said that irradiation should be used at the latest step only in case when the other sanitary practices have failed. It is said that if irradiation is widely authorised people will no more use the actual basic safety practices. Personally I do not care about the practises. As a consumer I just want the product I am going to eat to be safe. So I do not understand why you do not want to broaden the use of irradiation especially when the SCF gives a green light. I do not understand why you do not follow its recommendations. If you do not follow its advice, just get rid of it, kill it and use the tax payer's money in a better way. And please do not call

Date - representing[1] name, address	**Comment** (most comments have been shortened)
	in the principle of precaution!

Annex I

US GOVERNMENT COMMENTS

EC CONSULTATION PAPER SANCO/02/GSD

IRRADIATED FOOD AND FOOD INGREDIENTS

COMMISSION PROPOSAL FOR COMPLETION OF THE POSITIVE LIST OF FOOD STUFFS AUTHORISED FOR TREATMENT WITH IONISING RADIATION

The United States Government (USG) thanks the Commission for inviting comments on the subject proposal.

We agree that harmonization of a "positive list" of foods for which irradiation will be authorized for all Member States is beneficial to the functioning of the internal market, as well as to trade and consumers. We agree generally with the four conditions listed in your consultation paper that are deemed necessary in order for food irradiation to be authorized. Nevertheless, we disagree with reasoning that led to exclusion of so many foods from the positive list.

We believe that trade of irradiated foods will increase, and that restricting imports of irradiated foods without scientific justification could be considered a violation of the WTO SPS agreement.

In the United States, a variety of foods have been approved for irradiation, including fruit, vegetables, meat, poultry and eggs (see attachment). The USG believes that irradiation can be a useful tool for reducing foodborne pathogens, especially given the numerous outbreaks of foodborne illness globally in recent years. Food irradiation can also be used to control insect infestation, sprouting, and ripening of fruits and vegetables. We note that the global phase out of methyl bromide, used to control insect infestation, will have an impact on trade and creates the need for an alternative. Irradiation is a proven safe and effective alternative for controlling insect infestation. Numerous international organizations, including the World Health Organization, the Food and Agricultural Organization, the Codex Alimentarius Commission, and the International Consultative Group on Food Irradiation, have concluded that food irradiation is safe.

We understand that concerns have been expressed that irradiation must not be used to substitute good hygienic practices. We agree, but do not think that this argument should be used to deny the appropriate use of a technology with great potential for public health benefit. While it might be argued that such a substitution could be attempted, the appropriate regulations and standards require that good manufacturing practices be followed, to include the application of HACCP principles. Accordingly, food irradiation has demonstrated practical benefits when integrated within an established system for the safe handling and distribution of food. Experience indicates that even under good hygienic conditions it is nearly impossible to produce pathogen free foods. Irradiation can provide an extra level of protection for consumers.

Your paper indicated that a reasonable technological need is one of the criteria for inclusion. We concur. However, the document also states that products not irradiated in Member States or only in very small amounts can be interpreted as demonstrating insufficient technological need. We disagree strongly with this narrow rationale. Technological need should refer to the application of a scientific principle in a practical manner to benefit society. Improving safety, extending shelf life, delaying ripening, and controlling pests are examples of technological purposes for irradiating food. The use of the volume of products processed as an indicator of technological need is inappropriate. There are numerous social and economic factors that may contribute to low treatment volume even when a reasonable technological need exists. If a Member State has not authorized a particular application of irradiation or if there is a perception that importing countries would not accept such products, then the opportunity to satisfy the needs that may exist is diminished. Additionally, low treatment volume in EU member states does not suggest that there is no reasonable technological need in countries that export to the EU. We respectfully request that you reconsider your criteria for determining “technological need” to focus more on scientific justification and consumer benefit.

It is acknowledged that consumer acceptance is an issue with regard to food irradiation. We understand that consumer opinion is important, but think that much of the consumer resistance to food irradiation is based on false and misleading information. Evidence suggests that as consumers are presented with factual information which includes explanation of potential benefits, they are much more likely to choose to purchase irradiated food. There is already considerable data showing that irradiated hamburger patties are being readily purchased in the midwestern part of the U.S., where sales initially began following FDA and USDA rulings. Consumers deserve the option to purchase irradiated foods without government interference as long as there are not safety issues.

We note that the EU Scientific Committee for Food has given favorable opinions on irradiation of a number of foodstuffs, including fruit, vegetables, cereals, fish, and fresh meat and poultry.

Therefore, we request that the Commission consider including in its positive list all foods that received favorable opinions from the EU Scientific Committee for Food. We also request that you provide information concerning how countries that export to the EU can apply for approval of new foods to the positive list.

We urge you to consider this USG position in order to arrive at a final strategy for developing the list, and look forward to your response and continued dialogue on this subject.

Sincerely,

Lloyd Harbert

Director, Food Safety and Technical Services Division

U.S. Department of Agriculture/Foreign Agricultural Service

APPROVED U.S. FOOD IRRADIATION USES

Food	**Purpose**	**Dose (kGy)**
Fresh Foods	Growth and maturation inhibition	1 max.
Foods	Arthropod disinfection	1 max.
Dry Enzyme Preparations	Microbial disinfection	10 max.
Dry Spices/Seasonings	Microbial disinfection	30 max.
Poultry	Pathogen control	3 max.
Frozen Meats (NASA)	Sterilization	44 min.
Refrigerated Meat	Pathogen control	4.5 max.
Frozen Meat	Pathogen control	7 max.
Fresh Shell Eggs	Salmonella reduction	3 max.
Seeds for Sprouting	Pathogen control	8 max.

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

INTERNATIONAL ATOMIC ENERGY AGENCY

WORLD HEALTH ORGANIZATION

INTERNATIONAL CONSULTATIVE GROUP ON FOOD IRRADIATION

(ICGFI)

SECRETARIAT: JOINT FAO/IAEA DIVISION OF NUCLEAR TECHNIQUES IN FOOD AND AGRICULTURE, INTERNATIONAL ATOMIC ENERGY AGENCY, WAGRAMERSTRASSE 5, P.O.BOX 100, A-1400 VIENNA, AUSTRIA

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Ref: 319-D6-22 Date: 2001/08/08

Subject: ***Comments by the International Consultative Group on Food Irradiation (ICGFI) on the European Commission Consultation Paper: Irradiated food and food ingredients – Commission Proposal for completion of the positive list of foodstuffs authorised for treatment with ionizing radiation.***

The European Commission in its above referred Consultation Paper has invited comments from interested parties on its proposal for a *Community positive list of foodstuffs authorised for irradiation* before submitting the Commission proposal to the Council and European Parliament.

The ICGFI, based on scientific evidence, place the following comments before the European Commission to justify the inclusion of all foodstuffs which have been recommended by the EC-SCF in the *Community positive list of foodstuffs authorised for irradiation.*

The Commission has proposed the following criteria for drawing up the positive list, as required by the framework Directive, namely, there must be a benefit for the consumer; there must be a reasonable technological need; and, irradiation should not be used to substitute good hygienic practices.

The EU Scientific Committee for Food (SCF) recognized as early as 1986 that food irradiation is a safe process, similar to heating and freezing preservation of food, in line with the Codex General Standard for Irradiated Foods adopted by the Codex Alimentarius Commission in 1983. Thus, similar to heating and freezing, it should be allowed to be used whenever this technology is required. I therefore do not find any scientific justification for the Commission's proposal to exclude fresh fruits and vegetables, cereals, starchy tubers, fish, casein, rice flour and blood products, as well as red meat and poultry meat from the positive Community list to be completed by December 31, 2000. The argument that some or all of these products "are not irradiated in Member States or only in very small amount" is not sufficiently valid to exclude them from the list. Please note the following:

1. The global trade liberalization through the World Trade Organization, in particular through the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) requires that national authorities in members of WTO base their regulations on the basis of Codex Standards with regard to food safety. In doing so, the regulations should be based on sound science and proper risk analysis. Therefore, the ICGFI respectfully request the Commission to give due consideration to approving the use of irradiation to a wide variety of food products based on the Codex General Standard for Irradiated Foods, as endorsed by the European Commission's Scientific Committee for Food, to avoid introducing non-tariff barriers to trade based on the principles of the SPS Agreement.

2. The global phase out of methyl bromide (MB), the most widely used fumigant for controlling insect infestation in food and agricultural commodities, under the Montreal Protocol, will have a strong impact to trade in commodities which require insect disinfestation treatment. Some of the products proposed to be excluded from the positive list are fumigated by this chemical in several countries. Although it may be argued that the Montreal Protocol exempts the use of MB for pre-shipment and quarantine purposes, but the fact that advanced countries will not be allowed to produce this chemical starting 2005 will create uncertainties with regard to the availability and cost of this chemical in the future. Irradiation is a proven, safe and effective alternative to MB fumigation for controlling insect infestation in food and should be allowed as such.

3. Fish, including smoked fish and other ready-to-eat food including cheeses, are often contaminated by *Listeria monocytogenes* which could cause serious health implications to some consumers especially those who are immuno-compromised. Some countries have zero-tolerance for this pathogen in ready-to-eat food. Irradiation is the most effective treatment of such food to protect consumer health. Irradiation therefore should be allowed for these products as it brings a clear health benefit to consumers.

4. Fresh fruits and vegetables may harbour insects especially tephretid fruit flies which, if allowed to be established within the EU, could be devastating to the local agriculture. In some countries, MB is used to control insect infestation in these commodities. Irradiation is not only the most viable alternative to MB but often offers advantages over MB in several commodities, both fresh and dried fruits. In addition, shelf-life of fresh fruits such as strawberries could be significantly extended to bring benefits to the consumers. This technology is being used commercially in countries outside of the EU.

Other food such as dried fruits and nuts should also be included in the positive list as well. These foods are routinely fumigated by methyl bromide to control insect infestation at the country of origin. Irradiation has been proven to be the most viable insect disinfestations method for these products.

5. The Commission has also excluded (unpeeled) frozen shrimp, fresh red meats and poultry meat from the positive list citing the reason 'in order not to discourage good hygienic practices, first priority should be given to measures able to improve the hygienic conditions during the production of these foodstuffs rather than decontamination of the foods afterwards by ionising radiation'. We do not agree to this proposal for the following reasons:

♦ We agree that all efforts must be made to improve the hygienic conditions during the production of meat and poultry products. However, practical experience in most countries point to the fact that while it is possible to improve considerably the hygienic quality of these products by adopting the HACCP system in the various areas of production and processing, total elimination of potentially pathogenic microorganisms is a very difficult and complex problem. The Salmonella control programmes in poultry in some EU countries, while significantly reduce the level of contamination of this pathogen and create better awareness regarding production of "Salmonella free" poultry, do not address the control of other potential pathogens such as Campylobacter. As a consequence of the inability to produce pathogen free poultry at this moment, decontamination treatments of end-products by application of irradiation must be considered. In recent times, a national increase in cases of illness caused by multiple antibiotic resistant *Salmonella typhimurium* DT104 has been detected in the UK. Likewise, there have been reports of outbreaks of food-borne illnesses in several parts of the world including EU countries. The recent outbreaks of food-borne illnesses caused by *Escherichia coli* O157:H7 in raw/frozen and *Listeria monocytogenes* in processed meat and meat products, from processing plants which have implemented HACCP plans, and the application of irradiation to address this problem in the USA, points to the need for a global strategy for the elimination of these newly emerging food-borne pathogens by a decontamination treatment of the end product. Such a strategy is similar to mandatory use of pasteurization for milk and other liquid food to control food-borne pathogens.

♦ It is difficult for me to find a scientific argument for allowing irradiation only for peeled shrimp but not for unpeeled shrimp. It is true that peeled shrimp normally are more susceptible to contamination by pathogenic bacteria. However, aquaculture shrimp which are produced in developing countries in increasing proportion are also more contaminated by pathogens than those harvested directly from the ocean. Irradiation is

the only known method to inactivate pathogens such as *Salmonella, Shigella, Vibrio* spp. in raw and frozen food, regardless of peeled or unpeeled. Its use for ensuring the microbiological safety of unpeeled shrimp should not be prohibited but encouraged.

♦ It is important to dissociate irradiation as a method for "cleaning up" or replacing GMP in food processing. Irradiation is no different from pasteurization and fumigation, which can be called "clean-up" processes as they do inactivate microorganisms in food, to protect consumer health. None of these processes, however, can replace GMPs, otherwise the sensory quality of the end products would be unacceptable. The food industry is highly competitive and is fully aware that only good quality products will sell!

Detection Methods

The EU has unilaterally issued its Directives for 5 detection methods and working on others with the justification to ascertain whether "irradiated foods are correctly labeled", will consequently create non-tariff barriers to trade in irradiated food within and between the EU and third countries. I believe that the EU is putting unnecessary constraint to its network of food control systems within its Member States for the following reasons:

1. The Member States of EU will have to establish a system to monitor all food products, especially those which could benefit from irradiation treatment, in trade in all of their countries. This is an expensive and time consuming operation. It would be more effective for the EU to co-operate with national and international organization to control trade in irradiated food through proper certifications system in the same manner as HACCP is mandatory for food of animal origin to be imported to the EU for food safety reasons. Inspection and analytical techniques of end products could then be only optional.

2. Some Member States of the EU have already conducted surveillance on irradiated food being marketed in their countries, in particular irradiated spices and dried vegetable seasonings, purportedly to enforce their labelling regulations. This exercise is rather surprising as there are no such surveillance in these Member States for ethylene oxide fumigated spices and seasonings which are prohibited for marketing in the EU since 1991. It is ironic that these Member States are monitoring the sale of irradiated spices which are known to be safe for consumption and are produced commercially in some EU Member States while ignoring the sale of fumigated spices which are known to be toxic and prohibited by the EU.

Recognizing that establishing laboratories and expertise for detection methods for irradiated food, for which there is no international consensus, is beyond the means of most developing countries, FAO and IAEA through their Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, are establishing a certification system to facilitate trade in irradiated food. Such a system is similar to those of food processed according to religious belief (e.g. Halal and Kosher) and organically produced food, none of which can be reliably analyzed for processes undergone.

Summary:

On behalf of the ICGFI, we believe that we have provided the Commission with clear justifications for "reasonable technological need" for including those items proposed by the Commission to be excluded from the positive Community list. Article 4 of the Directive 1999/2/EC (22 February 1999) indicated that the Community list shall be established in stages. Knowing the time required for the first stage of the Community list to be established and without knowing when the next stage would be, we would like to encourage the Commission to include as many foodstuffs recommended by the SCF as possible especially those food items listed under Item 12 of the Consultation Paper in the *Community positive list of foodstuffs authorised for irradiation.* We strongly believe that by not authorising these irradiated foods which have already been endorsed by the EU-SCF and which are in compliance with the Codex General Standard for Irradiated Foods, the EU will not only find it difficult to justify its position under the SPS Agreement of the WTO but will in effect, deny the right of their citizen to safe and nutritious food.

With best regards,

Yours sincerely
Prof. Azhar Djaloeis
ICGFI Chairman
Secretariat of ICGFI

CC: Mr. P. Loaharanu, IAEA, Vienna
Mr. M. Satin, FAO, Rome
Dr. G. Moy, WHO, Geneva

Annex II (extracted from comment of Gammaster):

Quantité de denrées traitées par ionisation de 1996 à 1998 en France

(exprimée en tonnes, *source DGCCRF*)

	1996	**1997**	**1998**
Epices, aromates et légumes déshydratés	6454	6517	6354
Herbes aromatiques surgelées	111	128	126
Légumes secs	0	0	0
Fruits secs	52	537	365
Gomme arabique	733	854	739
Flocons de céréales pour produits laitiers	59	70	40
Farine de riz	106	0	0
Fraises	0	0	0
VSM, viande et abats volailles	6690	6800	10449
Cuisse de grenouilles congelées	424	363	711
Crevettes congelées décortiquées ou étêtées	36	79	29
Sang, plasma, cruor déshydraté	208	372	559
Blanc d'œuf	17	18	219
Caséines, caséinates	494	279	249
Camembert au lait cru	0	0	0
Aliments pour animaux de laboratoires	17	26	28
Colostrom bovin	0	0	0
Quantité totale traitée (en tonnes)	***15.401***	***16.043***	***19.921***