July 25, 2000

Docket No. 98-030-1
Regulatory Analysis & Development, PPD
APHIS, Suite 3C03
4700 River Road Unit 118
Riverdale, MD 20737-1238

Dear USDA-APHIS:

We are writing to oppose the USDA/Animal Plant and Health Inspection Service's (USDA-APHIS) proposal to allow the irradiation of imported fruits and vegetables. The Center for Food Safety believes that irradiation is an unacceptable alternative to methyl bromide use for addressing issues of exotic pest and disease threats to U.S. agriculture arising from imported commodities. The use of irradiation also poses unacceptable human health risks to consumers and numerous unnecessary threats to our environment.

Numerous pre-shipment and quarantine methods are available to prevent pest and disease threats to US agriculture that pose neither the human health threats nor environmental impacts associated with the use of ionizing radiation. For instance, one example used on fruits is the simple application of natural fruit waxes which impedes fruit deterioration and asphyxiates insects already present in the fruit. Other alternatives for pest and disease control include but are not limited to: (1) the application of cold treatments; (2) the use of modified atmospheres, achieved by altering the relative concentration of oxygen and carbon dioxide; (3) the use of techniques involving high pressure followed by rapid decompression (known as the OEX method); (4) heat treatments; and (5) hermetic storage combined with other treatments. Another new alternative for the treatment of fruit is the use of ultraviolet light pulses from lasers which enables surface control of insects and mites. All of these techniques should be fully explored and implemented by under USDA regulatory requirements as sound replacements for methyl bromide use and as alternatives to any new imposed irradiation requirements.

Ultimate, the Center for Food Safety (CFS) does not believe irradiation is an appropriate technology to be used in our food production system. CFS believes that the technology poses severe drawbacks and limitations that make the use of irradiation inappropriate. In addition, CFS believes that irradiation creates legitimate health and environmental concerns which are unacceptable to the public.

In particular, irradiation has a number of effects on food (including meat products). Among the major concerns is the ambiguity of its long-term effects on human health. Molecules that absorb irradiation

become reactive and form ions and free radicals, which react to form chemically stable radiolytic products.[1] A number of radiolytic free radicals are believed to be unique, or at least more prevalent in, irradiated foods.[2] Free radicals are highly reactive compounds and some have been associated with oncogenicity, mutagenicity and carcinogenicity. While none of these radiolytic free radicals have been conclusively determined to be carcinogenic, it is not known whether there are long-term health effects associated with these irradiation byproducts.[3]

The USDA should exercise significant precaution in regulating imported fruits and vegetables so that products coming into the United States do not pose unwarranted human health and environmental effects. A regulatory regime for quarantine treatments that are not dependent on ionizing radiation when combined with a vigilant pre-shipment monitoring program in the country of product origin, can prevent new pest and disease threats to US agriculture as well as ensure a food supply that does not threaten the well-being of the public.

Should the USDA errantly allow for irradiated imports contrary to this comment, then at a minimum the agency must require the labeling of all irradiated products (combined with labeling of their country of origin) so that consumers, such as the members of the Center for Food Safety, can choose to avoid this materially altered food based upon their informed and reasonably-held health concerns about irradiation.

Respectfully submitted,

Joseph Mendelson, III

Legal Director

1. Woods and Pikaev, 1994.

2. Elias, P.S. and A.J. Cohen. 1977. *Radiation Chemistry of Major Food Components*. New York: Elsevier Biomedical Press.

3. Murray, D.R. 1990. *Biology of Irradiated Food*. New York: John Wiley & Sons.