

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

THIRTEENTH CONGRESS
First Regular Session



HOUSE BILL NO. 2730

Introduced by Representative Ferjanel G. Biron, M.D.

EXPLANATORY NOTE

Food irradiation is a physical method of food treatment comparable to processing food by heating or freezing. The process involves the exposure of food to ionizing radiation coming from radioisotopes or electron machines. The irradiation of food results in the following beneficial effects: 1) disease-causing organisms such as Salmonella are eliminated; 2) the number of harmful bacteria, molds and yeasts that cause decay and spoilage of food is reduced significantly, if not totally eliminated; 3) ripening of fruits is delayed and the sprouting of tubers is inhibited; and 4) insects/pests are killed or rendered sterile.

It is now recognized that food irradiation can contribute significantly to food safety and security as well as quarantine security. It is also expected to play a significant role in overcoming non-tariff barriers to trade of food exports of the ASEAN countries and the rest of the world. Global trade developments are expected to promote wider trade in agricultural commodities from the ASEAN, thus, measures to ensure food security and market access within and outside the region must be undertaken. As food irradiation gains global acceptance, it is about time that the Philippines work out to prepare for such trade opportunities that may arise. To date, many countries worldwide have approved over 40 irradiated food items for human consumption and the technology is widely used commercially for a variety of food items.

We must also take into consideration the annual losses in agriculture crops and fishery products which have reached almost 50% especially in tropical countries where humidity and temperature are high. These losses can be minimized through irradiation. In fact, large scale application of irradiation technology in the country will ensure increased food supply and economic recovery in the countryside through the reduction of post harvest losses.

On the other hand, the advantage of radiation sterilization of medical supplies and medical products have caught the interest of private companies who have shown inclination and interest to put up an irradiation facility service.

In the country, the Philippine Nuclear Research Institute (PNRI) has initiated and is actively involved in research and development efforts in two (2) major areas of application of irradiation technology, namely: food irradiation and medical products sterilization. At present, the PNRI operates an irradiation facility for use in pilot scale studies in food irradiation and medical products sterilization like sterilization and decontamination needs of some manufacturers of surgical gloves, empty gelating capsules, cosmetics, spices and dehydrated flavors. But the present facility requires upgrading to fully serve the pilot scale irradiation requirements of the industry research and development.

The establishment of the National Facility for Irradiation Technology will undoubtedly redound to greater efficiency in the implementation of the application of atomic energy for peaceful purposes, and will promote and enhance already existing linkages with local as well as other international institutions. It will put the Philippines at par with the leading countries in the ASEAN region. As the requirements of trade become more stringent, the Philippines has to prepare itself to address the issue of global competitiveness. Harnessing the potentials of nuclear energy for peaceful and productive application such as irradiation technology would contribute to economic development as an advanced technology.

Considering the need for a national facility for food irradiation and medical products sterilization on a commercial scale, immediate passage of this measure is earnestly sought.



FERJENEL G. BIRON, M.D.
Representative
Fourth District of Iloilo

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**AN ACT
ESTABLISHING A NATIONAL FACILITY FOR IRRADIATION
TECHNOLOGY AT THE PHILIPPINE NUCLEAR RESEARCH
INSTITUTE AND APPROPRIATING FUNDS THEREFOR**

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

SECTION 1. **Title.** - This Act shall be known as the "Irradiation Technology Act of 2004"

SEC. 2. **Declaration of Policy.** - It is hereby declared a policy of the State that science and technology are essential for national development and progress. The State shall give priority to research and development, invention, innovation and their utilization; and to science and technology education, training and services. It shall support indigenous, appropriate, and self-reliant scientific and technology capabilities, and their application to the country's productive systems and national life.

SEC. 3. **National Facility for Irradiation Technology.** - To carry out the declared policy, there shall be established a National Facility for Irradiation Technology, hereinafter referred to as the Facility under the Philippine Nuclear Research Institute.

SEC. 4. **General and Specific Objectives.** - The Facility has the following general and specific objectives:

A. General Objectives:

1. To stimulate and guide scientific and technological efforts towards fulfilling the basic needs of people;

2. To survey indigenous natural and technological resources of the country and formulate a comprehensive program for development and maximum utilization of such resources in the solution of the country's problems through irradiation technology;
3. To promote and encourage the dissemination of the results of research and development (R&D) in irradiation technology to the users and general application thereof;
4. To accelerate the commercialization and the transfer of irradiation technology to the private sector;

B. Specific Objectives:

1. To undertake an integrated national planning and coordination of the various aspects of irradiation technology;
2. To provide proper irradiation facility for commercial, large scale practical applications in the fields of food preservation and medical products sterilization and for other agricultural and industrial applications of radiation processing.

SEC. 5. **Definition of Terms.** - for purposes of this Act, the following terms shall mean:

1. Irradiation - a physical method of treating food and medical products by exposing them to gamma rays or electrons from radioisotopes and electron machine.
2. Irradiation Facility - any licensed nuclear establishment or enterprise utilizing external radiation sources for treatment of food and other products.
3. Irradiation Technology - the widescale application of radiation processes and procedures.

SEC. 6. **Irradiation Facility Management.** - The Facility shall be managed, operated and maintained by the Philippine Nuclear Research Institute (PNRI). It shall take such measures that may be necessary to accomplish the objectives and implement the policies of this Act. It shall establish and define guidelines for the overall implementation of the various aspects and phases of the irradiation technology program involving the National Irradiation Facility. For this purpose, the PNRI shall determine such requirements to assure safe, effective and efficient management, operation and maintenance of the Facility; It shall likewise determine and collect fees and charges in connection with the services rendered by the Facility; and, subject to the approval of the Secretary of the Department of Science and Technology (DOST), the PNRI, in consultation with the concerned agencies, shall promulgate the rules and regulations necessary to carry out the purposes of this Act.

SEC. 7. **Assistance of Other Government Agencies.** - The PNRI is hereby authorized to call upon other government agencies and instrumentalities for assistance and cooperation in the formulation and implementation of its policies, plans and programs relevant to irradiation technology.

SEC. 8. Appropriations. - The amount necessary to carry out the provisions of this Act shall be included in the General Appropriations Act of the year following its enactment into law and thereafter.

SEC. 9. Effectivity. - This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in at least two (2) national newspapers of general circulation, whichever comes earlier.

Approved.