

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

SEVENTEENTH CONGRESS
3rd Regular Session

House Bill No. 7952



Introduced By: Rep. Allen Jesse C. Mangaoang

EXPLANATORY NOTE

The Philippine Nuclear Research Institute (PNRI) is the sole government agency in the Philippines that is mandated to both develop and regulate the peaceful uses of nuclear energy in the country.

PNRI was originally established in 1958 as Philippine Atomic Energy Commission (PAEC) through Republic Act No. 2067 or the Science Act of 1958. RA 2067 sought to promote scientific and technological research and development, foster invention and utilize scientific knowledge as an instrument for the promotion of national progress. In 1987, the PNRI replaced PAEC and was reorganized under the Department of Science and Technology (DOST) as set forth under Executive Order 128. As set forth under EO 128, PNRI has dual functions first, as a regulatory agency and second, as promotional and operational agency. Given PNRI's dual functions, the need to separate its regulatory function from its promotional function became apparent. This separation of functions is also in line with International law to ensure the independence of the National Regulatory Body for nuclear and atomic matters.

On November 21, 2017, a proposed Bill entitled, *"An Act Providing for a Comprehensive Nuclear Regulatory Framework, Creating for the Purpose, the Philippine Nuclear Regulatory Commission, and Appropriating Funds Therefor"*, was approved in the Joint Committee Meeting of the Committee on Government Reorganization and the Committee on Science and Technology of the 17th Congress. The Bill provides the creation of a separate

agency whose main concern would be nuclear safety, security and safeguards, separate from the promotional and operational functions of PNRI.

Hence, the impetus for the drafting of a proposed Bill entitled, *“An Act Providing for the Modernization of the Philippine Nuclear Research Institute, and Appropriating Funds Therefor and for other Purposes”*, also to be known as *“PNRI Modernization Bill”*, to modernize PNRI and in response to this development.

The significant benefits of nuclear applications are increasingly recognized by various sectors in the country. Research and development initiatives of the PNRI led to results, which are proven to address the pressing challenges of the country through the unique benefits offered by nuclear technology in food and agriculture, health and medicine, industry and the environment. Initiatives have likewise branched out seeking to respond to growing climate change concerns. In addition, PNRI researchers and scientists are gaining local and international recognition.

Considering the growing recognition of the advantages of nuclear technologies, the demand for services using these technologies have likewise increased. NEDA funded feasibility studies (F/S), for the establishment of nuclear facilities, were conducted in 2016. These F/S reported and identified the need for nuclear technology based on stakeholder consultations conducted in Luzon, Visayas and Mindanao. In contrast, PNRI currently has only 269 plantilla positions while addressing the nuclear technology requirements of the whole country. Upon the prospective separation of the Regulatory Division, the number of plantilla positions will be further decreased to 229.

Our neighboring developing countries in the Asia-Pacific Region like Indonesia, Malaysia, Thailand, and Vietnam, invested millions of dollars for the modernization of its nuclear facilities and laboratories. Nuclear facilities, such as nuclear research reactors, have been established and upgraded and were utilized for advanced nuclear research and development activities, provision of nuclear and allied services, and nuclear manpower development.

For the Philippines to be globally competitive in the field of nuclear science and technology, it is important to strengthen the role of PNRI as the only government agency

mandated to promote the peaceful applications of nuclear and radiation science and technology. To this end, it is essential for PNRI to: (1) expand its technological operational capacity; (2) enhance its research and development capabilities; (3) be able to utilize its income; and (4) increase capacity building activities for nuclear manpower development.

Therefore, the immediate passage of the proposed PNRI Modernization Bill is earnestly sought.


ALLEN JESSE C. MANGAOANG



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2nd Regular Session

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Introduced by: REP. ALLEN JESSE C. MANGAOANG

**AN ACT
PROVIDING FOR THE MODERNIZATION OF THE PHILIPPINE
NUCLEAR RESEARCH INSTITUTE, DEPARTMENT OF SCIENCE AND
TECHNOLOGY (PNRI-DOST), AND APPROPRIATING FUNDS
THEREFOR AND FOR OTHER PURPOSES**

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

SECTION 1. *Short Title.*—This Act shall be known as the “Philippine Atomic Energy Research Institute of the Department of Science and Technology (PNRI-DOST) Modernization Act of 2018”.

SEC.2. *Declaration of Policy.*—It is hereby declared to be the policy of the State to:

(a) Harness the peaceful uses of nuclear and radiation science and technology in various fields, including but not limited to health and medicine, food and agriculture, energy, industry, environment, water resources, oil and mineral resources and education;

(b) Strengthen the capability of the government agency tasked to:(1) conduct research and development in the field of nuclear and radiation science and technology, (2) operate nuclear and radiation facilities, (3) provide nuclear, radiation and other allied services, and (4) disseminate and transfer nuclear and radiation related knowledge and technologies;

(c) Ensure that utilization of nuclear and radiation technology adheres to established nuclear regulations and legal requirements; and

(d) Develop new competencies and capabilities in the field of nuclear and radiation science and technology.

Towards these ends, the State shall undertake the modernization of the Philippine Nuclear Research Institute (PNRI), to improve its technological operational capacity, strengthen its role as the only government agency mandated to promote the peaceful applications of nuclear and radiation science and technology and to attain its vision as a center of excellence for nuclear and radiation science and technology.

SEC. 3. Definition of Terms

(a) **"Atomic Energy"** means energy released from atomic nuclei as a result of any process, including the fission and fusion processes;

(b) **"Accelerator or Particle Accelerator"** pertains to any device, instrument, or machine that uses electric and/or magnetic fields to propel or accelerate particles to high speed;

(c) **"Institute"** refers to the Philippine Nuclear Research Institute;

(d) **"Facilities"** refer to nuclear installations or radiation facilities in which people may be exposed to ionizing radiation. These include uranium mining and raw material reprocessing facilities; enrichment and fuel manufacturing plants; other reactors such as research reactors (including subcritical and critical assemblies), , spent fuel storage facility, enrichment plant or reprocessing facility, irradiation installations; radioactive waste management facility, radiation generator installations and facilities; other nuclear and radiation facilities for medical, industrial, research and education purposes;

(e) **"Radiation"** refers to ionizing radiation, such as X-rays, gamma rays, alpha particles, beta particles, neutrons, and other nuclear and sub-atomic particles, which have enough energy to liberate electrons from atoms or molecules, thereby ionizing them. This does not include non-ionizing radiation such as sound, radio, visible, infrared or ultraviolet light;

(f) **"Radiation Facility"** refers to any facility that utilizes radioactive materials; particle accelerator facility; and other such facility as may be determined by competent authorities;

(g) **"Radiation Protection"** refers to the protection of people from the effects of exposure to ionizing radiation, and the means for achieving this.

(h) **"Radioactive Substance" or "Radioactive Material"** means any substance or material which spontaneously emits radiation in excess of the levels prescribed by notification by the authorized government agency;

(i) **"Research Reactor"** refers to a nuclear reactor used mainly for the generation and utilization of neutron flux and ionizing radiation for research and other purposes, including experimental facilities associated with the reactor and storage, handling and treatment facilities for radioactive materials on the same site that are directly related to safe operation of the research reactor.

(j) **"Income"** refers to fees and other payments given to the Institute in the conduct of its mandate and functions

SEC. 4. Mandate of the PNRI. –The PNRI shall be the center of nuclear and radiation science and technology (S&T) activities in the country. It shall be mandated to perform the following functions and responsibilities:

(a) To conduct research and development in the safe and peaceful uses of nuclear and radiation S&T;

(b) To operate, maintain and expand nuclear and radiation facilities in support to nuclear research and development and related S & T activities;

(c) To provide nuclear, radiation and allied services catering to the growing demands of the country;

(d) To intensify the dissemination and transfer of nuclear and radiation technologies to stakeholders, and interested parties for greater awareness, understanding and appreciation of its various applications;

(e) To enhance/intensify the commercialization/adoption of nuclear and radiation science and technologies;

(f) To ensure the utilization of nuclear science and technology for the socio-economic growth of the country;

(g) To provide nuclear and radiation science and technology expertise in the development of relevant government policies and regulations;

(h) To ensure that the country fulfils its commitments to international instruments entered into by the Republic of the Philippines that are relevant for the peaceful, safe, and secure use of nuclear and radiation science and technology.

SEC.5.Objectives. –The objectives of this Act are:

- (a) To upgrade physical resources and operational techniques through the establishment, acquisition and development of nuclear and radiation facilities, state-of-the-art instruments, equipment, and systems;
- (b) To enhance current capabilities of PNRI in conducting research and development, providing services, and disseminating knowledge and information in the field of nuclear and radiation S&T by upgrading its existing facilities and adopting emerging nuclear and radiation technologies;
- (c) To adopt a rationalized and integrated approach with focus on the improvement of basic operations and specialized services;
- (d) To strengthen nuclear, radiation-and allied services in order to cater to the growing demand of the country in the areas of radiation protection and calibration, radioactive waste management, nuclear analytical techniques, irradiation, isotope techniques and other nuclear, radiation and allied services;
- (e) To boost the utilization of nuclear science and technology in achieving socio-economic growth of the country;
- (f) To enhance the development of qualified manpower to cope with the international progress on the peaceful applications of nuclear technology;
- (g) To intensify transfer of technology, enhance public information, education and advocacy on the beneficial uses of nuclear and radiation science and technology;
- (h) To provide a more competitive base pay and other benefits for PNRI personnel in order to promote professionalism and commitment to the service;

SEC.6. Composition, Organizational Structure and Staffing Pattern.–

(a) Composition

(i) The PNRI shall be one of the research and development institutes (RDIs) of the Department of Science and Technology (DOST), to ensure alignment in national science and technology agenda, policies and priorities. It shall be headed by an Executive Director who shall be appointed by the President upon the recommendation by the Secretary of the DOST. The Executive Director shall be assisted by Two (2) Deputy Directors: One (1) for Research and Development, Technology Generation, and Human Resources Development; and One (1)

for Nuclear and Radiation Facilities Operation, Finance and Administration, to be both appointed by the President upon the recommendation of the DOST Secretary .

(b) Qualification

The Executive Director and the Deputy Directors of the PNRI must be Filipino citizens, resident of the Philippines, of good moral character, and with advanced degrees in relevant fields of study.

(c) Organization

The PNRI shall draw up its new organizational structure to be submitted to the Department of Budget and Management (DBM) through the DOST Secretary for approval.

(d) Staffing Pattern

The PNRI shall create new positions and realign existing positions as may be deemed necessary, subject to the approval of the DBM, through the DOST Secretary. The Executive Director shall appoint employees of the PNRI in accordance with the civil service law, rules and regulations and established qualification standards.

SEC.6. Functions of the PNRI. – The PNRI shall:

- (a) Conduct research and development on the application of nuclear and radiation techniques, materials and processes;
- (b) Operate and maintain nuclear research reactors and other nuclear and radiation facilities;
- (c) Provide nuclear and radiation S&T and allied services and expertise that enhance product quality, improve processes, ensure radiation protection, and generate information derived from the use of nuclear techniques;
- (d) Undertake the transfer of research results to end-users, through the creation of a favorable environment for the commercialization/adoption of nuclear and radiation science and technologies;
- (e) Enhance public information, education and training on nuclear and radiation science and technology to various stakeholders;

(f) Cooperate with and act as the national competent authority on nuclear and radiation science and technology for the International Atomic Energy Agency (IAEA), foreign governments, ministries, departments, and agencies, relevant national, regional and international organizations, including law enforcement and intelligence agencies;

(g) Provide nuclear and radiation S&T expertise in the development of relevant government policies and regulations; and,

(h) Perform such other relevant functions necessary to implement the provisions of this Act.

SEC. 7. Components of Modernization. – The PNRI modernization shall have the following components:

(a) **Modernization of Physical Resources and Operational Techniques.** – This shall entail the acquisition and/or upgrade of state-of-the-art instruments, equipment, facilities and systems: Provided, that prior to such acquisition and/or upgrade, an inventory of all existing government and private instruments in the PNRI shall be undertaken: Provided, further, that the acquisition of new instruments, equipment and systems shall be harmonized with the phase-out of uneconomical and obsolete instruments, equipment and systems in the existing PNRI inventory;

(b) **Enhancement of Research and Development Capability.** – This shall involve the enhancement of research and development capability through a more rationalized and totally integrated approach and identified activities, with focus on improvement of operations, as well as the development of specialized services with cost recovery measures:

(c) **Establishment of Nuclear and Radiation Facilities** which shall include:

(i) **Research Reactor (RR) Facility.** – This shall include subcritical and critical reactor assemblies which shall operate at power levels commensurate with the identified utilization for the facility. RR facilities shall be established in recognition of identified needs of various stakeholders in different sectors.

(ii) **Accelerator Facilities** such as electron beam, cyclotron, accelerator mass spectrometry – ion beam analysis, and synchrotron accelerator facilities.

(iii) **Radioactive Waste Facility;**

(iv) **Irradiation Facility; and,**

(v) Other Emerging Nuclear and Radiation Facilities

(d) Creation of a Human Resource Development Program. – This component shall include the following:

(i) New Salary Scale for PNRI Personnel. – The DBM shall develop a new salary scale for PNRI personnel in consonance with Republic Act No. 8439, otherwise known as the “Magna Carta for Scientists, Engineers, Researchers and other Science and Technology Personnel in Government” with a corresponding increase in the base pay, allowances and other benefits;

(ii) PNRI Personnel Retention Incentive. – An additional incentive to be known as the “Personnel Retention Incentive” shall be provided to qualified PNRI personnel, to be determined by PNRI in consultation with DBM in an amount not exceeding twenty percent (20%) of the monthly basic salary subject to the implementing rules and regulations (IRR) which shall be hereinafter formulated. This shall be in addition to the incentives set forth under RA No. 8349 otherwise known as the “Magna Carta for Scientists, Engineers, Researchers and other Science and Technology Personnel in Government”; and,

(iii) Scholarship Program. – Not later than three (3) years from the enactment of this Act, scholarships shall be provided for undergraduate and graduate studies in nuclear science and technology and related fields as well as for specialized training programs, in coordination with the DOST, Commission on Higher Education (CHED) and Higher Education Institutions (HEIs). Cooperation on human resources upgrading and capability enhancement with regional and international organizations shall also be undertaken.

(e) Development of Regional and International Cooperation Program. – This shall entail the development of appropriate collaborative arrangements with relevant regional and international bodies and government institutions to complement the national effort for modernization.

SEC. 8. Formulation and Submission of the PNRI Modernization Program. – The Secretary of the DOST and the Executive Director of the PNRI, in coordination with the Secretary of the DBM and the Director-General of the National Economic and Development Authority (NEDA), shall formulate the PNRI Modernization Program and oversee its implementation based on the policy objectives provided, in this Act. The PNRI Modernization Program shall indicate among others:

(a) PNRI's requirements in terms of personnel, equipment and facilities during the various stages of modernization;

(b) The modernization projects, which shall indicate the equipment and technology acquisitions, including establishment, major construction or upgrade of facility and the particular objective and component to which such intended acquisition, establishment construction and upgrading belongs to; and,

(c) The priorities, schedules and estimated cost of each modernization project.

Within ninety (90) days from the effectivity of this Act, the Secretary of the DOST shall submit to the President the PNRI Modernization Program for approval.

SEC. 9. *PNRI Special Fund.* –There is hereby created the PNRI Special Fund to be used exclusively for the PNRI Modernization Program and other activities of the Institute under this Act. The PNRI Special Fund shall be sourced from the following:

- (a) Income from the performance of its services, provided under Sec. 12 of this Act;
- (b) Grants, bequests, and donations whether from local or foreign sources.

The PNRI Special Fund shall be administered by the Executive Director of the PNRI in accordance with existing government budgeting, accounting and auditing rules and regulations.

SEC. 10. *Period of Implementation.* – The modernization program under this Act shall be implemented for an initial period of five (5) years: Provided, That payments for multi-year contract obligations incurred under this Act may extend beyond this period: Provided, further, That PNRI shall continue to modernize and constantly update its operational capabilities to keep pace with best global practices.

SEC. 11. *Use of Income.* –The budget of the PNRI, based on an annual appropriation from Congress, shall ensure that the PNRI has the financial and human resources necessary to fulfill its assigned responsibilities under this Act.

The PNRI shall also be authorized to:

(a) Charge and collect reasonable fees in the performance of its services, provided that such fees shall be imposed by regulation on the basis of such published criteria as the Institute deems appropriate; and,

(b) Use its income, donations, bequests, grants, awards, and all sums which may be appropriated for upgrading its physical and human resources, for the conduct of its activities, and for augmentation of its budget in case of shortfalls. For this purpose, the PNRI shall retain 75% of its income for the upgrading of its equipment, physical facilities, and human resources and the remaining 25% shall be remitted to the National Treasury. The PNRI may also solicit, receive and retain donations, bequests, and grants.

SEC. 12. *Progress Report.* – The Executive Director of the PNRI shall prepare an annual report on the status of the implementation of the PNRI Modernization Program which shall be submitted, through the Secretary of the DOST, to the President and to the Chairpersons of the Committees on Science and Technology of the Senate and the House of Representatives not later than June 30 of the succeeding year.

SEC. 13. *Appropriations.* – The amount needed for the initial implementation of this Act shall be taken from the current fiscal year appropriations of the PNRI-DOST to be augmented from the DOST lump sum appropriations (e.g. DOST-GIA). Thereafter, such sums as may be necessary for its continued implementation shall be included in the annual General Appropriations Act. The above-stated amount may be augmented by grants, bequests, contributions and donations whether from local or foreign sources in accordance with Section 9 (b).

SEC. 14. *Implementing Rules and Regulations (IRR).* –The PNRI, in consultation with the DOST, DBM and the Civil Service Commission (CSC) shall issue within ninety (90) days, the rules and regulations necessary to implement the provisions of this Act.

SEC. 15. *Separability Clause.* – If any provision of this Act shall be declared unconstitutional or invalid, the other provisions not otherwise affected shall remain in full force and effect.

SEC. 16. *Repealing Clause.* –The pertinent provisions of Republic Act No. 2067 as amended, otherwise known as the Science Act of 1958, Republic Act No. 5207 as amended,

otherwise known as the Atomic Energy Regulatory and Liability Act of 1968, Republic Act No. 9711 otherwise known as the Food and Drug Administration Act of 2009, Executive Order No. 128 Series of 1987 on Reorganizing the National Science and Technology Authority, rules and regulations and other issuances or parts thereof which are inconsistent with this Act are hereby repealed, amended or modified accordingly.

SEC. 17. *Effectivity Clause.* – This Act shall take effect fifteen (15) days from its publication in the *Official Gazette* or in a newspaper of general circulation.

Approved,