



Nuclear Science & Technology Working for You

The Philippines entered the nuclear age in 1958 with the creation of the Philippine Atomic Energy Commission (PAEC).

In 1987, it was renamed the Philippine Nuclear Research Institute (PNRI). It is currently one of the research and development institutes under the Department of Science and Technology (DOST).

Spearheading the peaceful benefits of the Atom in the Philippines, the PNRI serves as the center of nuclear and radiation applications to serve the country's various needs in agriculture, medicine and health, industry and environmental protection.

PNRI also serves as the regulatory body for nuclear and other radioactive materials in the Philippines.



MILESTONES

1958 The Philippine Atomic Energy Commission (PAEC) was established through the Science Act of 1958 to spearhead the development of nuclear science and technology in the country.

The Philippines became a Member State of the International Atomic Energy Agency (IAEA).

RP-USA Agreement for the Peaceful Uses of Atomic Energy was signed.

1959 First set of licensing rules and regulations and use of radioactive materials published in Official Gazette (APRIL 27).

1960 Establishment of the Philippine Atomic Research Center in Diliman, Quezon City.

Upon request of the Philippine government, an IAEA mission undertook a study on the prospects of nuclear power in the Philippines.

1959 Human resources development program in nuclear science and technology started with the first Radioisotopes Techniques Training Course.

1963 First criticality of Philippine Research Reactor (PRR-1) at 1 MW was attained.

The PRR-1 was used for training, research and production of short-lived radioisotopes.

MILESTONES

- 1964 —● Tripartite agreement among India, the Philippines and the IAEA (IPA) on neutron crystal spectrometry using the PRR-1 as host reactor.
- 1968 —● Passage of Republic Act 5207 providing for the licensing and regulation of atomic energy facilities.
- 1970 —● First PAEC-fabricated nuclear equipment system (renal scanning machine) provided to Rizal Medical Center.
- 1970 to 1986 —● PAEC undertook regulatory and research activities related to the Nuclear Power Plant in Bataan.
- 1972 —● The Philippines became a founding member of the Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific (RCA).
- 1972 —● The Philippines signed the Treaty on Non-Proliferation of Nuclear Weapons (NPT).
- 1973 to 1986 —● Presidential approval of the feasibility study of the UNDP and IAEA for the establishment of the first Philippine Nuclear Power Plant.
- 1973 to 1986 —● Philippine Nuclear Power Project was implemented.
- 1973 —● Presidential Proclamation No. 1211 declaring the second week of December of each year as Atomic Energy Week.
- 1974 —● Gen. Florencio A. Medina, Chairman of the National Science Development Board and former PAEC Commissioner, was the first Filipino to be elected as President of the IAEA General Conference.
- 1976 —● The First Philippine Nuclear Congress was held at the Philippine International Convention Center.
- 1977 —● The University of the Philippines offered program in Master of Science in Nuclear Engineering.
- 1987 —● Executive Order 128 reorganized PAEC into the Philippine Nuclear Research Institute under the Department of Science and Technology.



1988 —● Second criticality of PRR-1 at 2 MW was attained.

1989 —● The Multipurpose Irradiation Facility at PNRI became operational - used for food irradiation, medical products sterilization and research applications.

1995 —● The Philippines signed the first Country Programme Framework (CPF) with the IAEA for 1995, to facilitate the transfer of nuclear technology and technical cooperation resources.

1996 —● Dr. William G. Padolina, Secretary of the Department of Science and Technology in the Philippines, was elected the President of the 40th General Conference of the IAEA.

The Philippines held the Second Philippine Nuclear Congress at the Manila Pavilion Hotel with IAEA Director General Hans Blix as guest speaker.

2000 —● Approval of the Radiological Emergency Preparedness and Response Plan.

2001 —● First medical cyclotron was licensed by PNRI.

2001 to 2005 —● PNRI developed PVP carrageenan hydrogel dressing for burns and wounds, and the mutant ornamental plants Kamuning dwarf mutant (*Murraya* 'Ibarra Santos'), *Dracaena* 'Marea' and *Cordyline* 'Medina'

Administrative Order No. 152 "Prescribing Regulations on Irradiated Food" was approved.

2004 —● Philippines' participation in the TC Project PHI6019 on Neonatal Screening for Congenital Hypothyroidism, resulted in a national legal framework for newborn screening.

2005 —● The IAEA designated the PNRI as a Collaborating Center on Harmful Algal Blooms Studies.

2006 —● The IAEA chose the PRR-1 as a training platform under the Research Reactor Decommissioning Demonstration Project (R2D2P).

2008 —● The Multipurpose Irradiation Facility was upgraded from a pilot-scale to a semi-commercial facility.

2009 —● Environmental Isotopes Center was commissioned.



2010 ● The IAEA designated the Philippines as one of the three pilot countries for the IAEA Water Availability Enhancement Project, or IWAVE.

2011 ● The National Nuclear Security Plan and the IAEA Integrated Nuclear Security Support Plan (INSSP) became operational.

2011 ● Fukushima Dai-ichi Nuclear Power Plant Accident, the Philippines joined in an RCA regional project to study the disaster's impact on the marine environment. PNRI manages the data being compiled in the Asia and Pacific Marine Radioactivity Database (ASPAMARD).

2012 ● The Technetium-99m Generator Facility was commissioned.

2012 ● PNRI Neutron School was established.

2013 ● Tripartite cooperation of the Philippines with the IAEA and the South African Nuclear Energy Cooperation (NECSA) on the conditioning and storage of Spent High Activity Radioactive Sources (SHARS).

2014 ● The PNRI Electron Beam Facility was commissioned.

2014 ● The re-establishment of the Philippine Research Reactor-1 (PRR-1) was initiated.

2015 ● The Philippines held the Third Philippine Nuclear Congress at the Diamond Hotel in Manila, with IAEA Director General Yukiya Amano as guest speaker.

2016 ● Re-designation of PNRI as an IAEA Collaborating Center for Harmful Algal Bloom Studies.

2016 ● Plans for establishment of a commercial irradiation facility.

2018 ● The Education and Science ministries signed a Memorandum of Understanding to implement TC Project RAS0079 - Educating Secondary Science Teachers and Students on Nuclear Science and Technology.



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