

Nuclear Research Centres in the 21st Century

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Making R&D at MINT relevant to national development

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Abstract. This paper attempts to identify issues facing nuclear research centres by tracing the development of the Malaysian Institute for Nuclear Technology Research (MINT). Approaches taken to arrive at the strategies in the areas of research and technology development, co-operation and technology transfer, and commercialization are highlighted. Interspersed in that review are some of the issues that are then collated in the Issues section.

Introduction

Nuclear power, which is generally regarded as the mainstay of the peaceful applications of nuclear science and technology, is the last option in the Malaysian national energy policy. As such, Malaysia currently has no nuclear power program.

This situation does not disadvantage MINT, which was established with nuclear power program as one of the considerations, for that enables it to concentrate in non-power applications of the technology that spans all major socio-economic sectors (agriculture, industry, manufacturing, medicine, environment, etc.). Success in these areas of application could swing the generally negative public perception on nuclear technology towards one that would be more supportive of it so that future introduction of nuclear power program, if and when the need arise, would not be faced with great misunderstandings and oppositions.

MINT was established in September 1972 as Tun Ismail Atomic Research Centre (PUSPATI). In June 1983 it was renamed Nuclear Energy Unit (UTN) following its placement under the Prime Minister's Department. In October 1990 it was retransferred to the Ministry of Science, Technology and the Environment and in August 1994 it adopted its current name. The change of name to MINT better reflects the technology-orientation of the Institute. In addition it should also be noted that nuclear energy or atomic power is after all a subset of nuclear technology.

These changes, taking place at about a decade intervals, reflect "virtual milestones" or stages in the development of the organization. During the formation stage in the 70s to early 80s the site of the complex was acquired, buildings and facilities erected, and the core staffs recruited and trained. In fact the 1 MW TRIGA Mark II research reactor went into criticality in June 1982. The next stage is the capacity building stage during which several research support facilities were set up and put into operation; among the early ones are those related to the utilization of the research reactor such as NAA and radioisotope production.

In 1994, at a strategic plan workshop, the upper and senior management staffs formulated MINT's mission, viz. "to enhance national development and economic competitiveness through excellence in nuclear and related technology." The workshop also formulated MINT's vision, objectives, and strategic thrusts that are all compiled into a book entitled "MINT Corporate Plan 2000." The mission statement clearly identifies the purpose of MINT's existence, its stakeholders, and the explicit recognition that nuclear technology can contribute to national development. It also recognizes the fact that other, related, technology