Thesis Title Preliminary Study of Environment Impact from Nuclear Waste

Management in Thailand

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Candidate Mr. Satapon moongkramglang

Supervisors Dr. Narumon Withers Harvey

Mr. Jocylyn Withers Harvey

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Abstract

Radioactive waste arisings in Thailand are due to industrial, medical, research applications and the research reactor at the Office of Atomic Energy for Peace and, in the future, the Ongkharak Nuclear Research Centre (ONRC). In this thesis, a study was made of the sources, characteristics, and quantities of these radioactive waste arisings. A review of Thailand's current radioactive waste management practices was conducted and a critical comparison with international practices made. A brief study of the resultant environmental contamination was also made. The use of radioactive material has generally remained constant in recent years, with solid waste principally being sealed sources and combustible in type by quantity, with liquid waste predominantly non-biological and non-organic in origin by volume. Existing waste management practices were considered adequate for current quantities and types of arisings, but the advent of the ONRC would necessitate changes. Organisational changes were also recommended. Whilst levels of environmental contamination were low, no assessment of dose to the public could be made due to a lack of monitoring and dosimetric data.

Keywords: Radioactivity / Radioactive waste management / Nuclear