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Assessment and Licensing Point of View Towards Borehole Disposal Facility in Malaysia

Malaysia is one of the rapidly developing countries using ionizing radiation from radioactive material, especially in research, industrial and medical applications. The use of these radioactive materials in various applications over time has led to the accumulation of radioactive waste called Disused Sealed Radioactive Sources (DSRS). These DSRS started to accumulate from the 70s until today, and up to date approximately more than 12,000 units of DSRS belong to Category 1 to Category 5 according to the International Atomic Energy Agency (IAEA) Safety Standards Series No. RS-G-1.9 Categorization of Radioactive Sources was generated and stored in the National storage facility located at Nuclear Malaysia Agency. Thus, Malaysia is currently dealing with the management of these large amounts of DSRS and the measure to manage it properly. Since 2011, the government of Malaysia approved the construction of a Borehole Disposal Facility proposed by the Nuclear Malaysia Agency as the ultimate solution to the large amount of DSRS. The development of this project also received full support from the government of Malaysia and financial assistance from the IAEA and the government of Canada. In the evaluation process of the Borehole Disposal Facility construction, the Department of Atomic Energy (Atomic Malaysia) as an atomic energy regulatory body had made several assessments before issuance of the license to this project under the provision of the Atomic Energy Licensing Act 1984 (Act 304) which provides the requirements and control of the atomic energy activities in Malaysia. The evaluation includes reviewing and endorsement of the technical and non-technical documents, assessment visits to the project site with the relevant stakeholders, discussions with the expert during the IAEA expert's mission, discussions with the project proponent as well as reviewing consideration of the findings from the public engagement and awareness activities. The Borehole Disposal Facility in Malaysia is actively under development and is the pioneer, therefore it will gain attention from all over the world in the perspective of assessment and licensing procedures and also the operation of this facility.

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