

Site Study for Long-term Storage and Integrated Disposal Facility in the Jawa Island Indonesia

Wednesday, 5 November 2025 14:15 (15 minutes)

Radioactive waste from industrial activities, hospitals, research and decommissioning of nuclear/radiation facilities needs to be managed completely until it is stored and disposed of so that it is safe, sustainable and does not pollute the environment. In line with these waste management principles, Indonesia will prepare a long-term storage and disposal, as part of the back end of the radioactive waste management stage, which aims to isolate waste so that there is no radiation exposure does not exceed the dangerous threshold to humans and the environment. The required level of isolation can be obtained by implementing various storage and disposal methods, including the long-term storage (LTS), near-surface disposal (NSD) and borehole disposal (BHD). Research on the LTS site, NSD and BHD (integrated disposal) of radioactive waste is carried out to determine the selected potential areas and optimize them to meet safety criteria. For the initial stage, a study was carried out in the Jawa Island. The steps taken include: 1) determining site criteria based on legislation, IAEA recommendations and expert opinions, 2) acquisition and evaluation of secondary data, 3) field surveys, 4) laboratory analysis, 5) data analysis and evaluation of geology and environment for the LTS, NSD and BHD sites. Based on the evaluation results, several potential areas for LTS, NSD and BHD facility sites were found. The potential areas sequentially from west to east of Jawa Island include: 1) Serang, Banten (andesite rock), 2) Serpong Nuclear Area, Banten (claystone of Bojongmanik Formation), 3) Subang, West Jawa (claystone of Subang Formation), 4) Sumedang, West Jawa (claystone of the Subang Formation), 5) Rembang, Central Jawa (sandstone of the Wonocolo Formation) and 6) Tuban, East Jawa (claystone of the Kujung Formation and siltstone of the Tuban Formation).

Technical Track

Fuel Cycle and Waste Management

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Session Classification: Fuel Cycle and Waste Management