AERB Colloquium

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Topic : Geotechnical Safety of Nuclear Facilities

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Safety of the foundation system for a nuclear facility plays an important role to achieve the objective of nuclear safety. Geotechnical safety of any nuclear facility includes assessment for suitability of the site against the ground failure modes like slope and embankment failure, stability of founding medium, soil erosion, subsidence and liquefaction. Detailed geotechnical investigation forms the basis for assessment of these phenomena as well as provides reliable inputs for safe design of the foundation systems. Safe design of foundation with identification and proportioning the founding area from stability and settlement considerations follows. The scope, rigor and challenges for geotechnical investigations differ with the type of founding media (soil/ rock). In this talk an overview of the geotechnical safety aspects of nuclear facilities was presented & related regulatory requirements on geotechnical investigations and foundation analysis/ design was covered. A case study based on recent experience of GHAVP site was also presented.

