Importance of Geological Factors for Final Safety Analysis Report of Nuclear power plants site selection

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One of the safety cases for site selection of Nuclear power plant sites is the geological safety analysis report. It is necessary to investigate the geological characteristics of the area and site.

The applicant should describe the site physical geography and physiography. In this paper the geological factors which are necessary to prepare the Final Safety Analysis Report (FSAR) of the site are investigated.

Site selection for Nuclear power plants is based on the geological investigation for the area to know if there are any hazards or dangerous cases like down lifting regions, subsurface cavities, faults, sink holes, air pollution, underground water pollution, etc.

The geological hazards are usually difficult to understand in a short period of time like displacement of the earth's surface along the faults or subsurface water level variations, so it is a vital case to study the geological characteristics of the area and site in detail and in a suitable period of time and by new and modern methods especially seismic surveys for seismic modeling of Nuclear power plants.

A vast domain of Geological FSAR factors is presented and discussed in this paper.

Keywords: Geology, FSAR (Final Safety Analysis Report), nuclear power plant, site selection