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**Local Materials for Constructing Different Shields of Nuclear
Power Plant**

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Abstract

The main parameters that must be considered before selecting the local ores to mix different concretes for different shields of a nuclear power plant are given and discussed. These parameters must assure that the constructed shield for a certain purpose possesses all the requirements that the radiation level at the outer surface of the shield is within or below the maximum permissible dose. In addition, the chosen materials for mixing different concrete shields surrounding the core of a nuclear power plant must assure that the shield is sustainable and keep function probably over the whole life of the plant. This is because the shields for a nuclear reactor are not amenable to replacement. Furthermore, the main tests that have to be performed on the mixed concretes to assess their reliability and effectiveness will be given and discussed.

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