

COOLANT CHANNELS STATISTICAL DEFORMATION MODEL FOR ATUCHA NUCLEAR POWER REACTOR

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Abstract. Coolant channels are structural components that contains the fuel elements into the reactor core. The limited space into their nozzle, impose a life time limit for the Zry-4 creep and growth induced by neutron irradiation. This work describes a statistical model based on the surveillance channels for the elongation evolution. Finally, predictions for the whole core are presented based on the deformation equations obtained from the statistical model, this allows a short term extrapolation and stablish a criteria for the coolant channels replacement program.