

## **N267. European Utility Requirements for the Next Generation of Nuclear Plant**

European utilities are keeping an open mind on their options for the next generation of nuclear plant. Designs under consideration include PWRs and BWRs with both evolutionary and passive features. However, the main European initiative has been the EPR (European PWR), which is being developed jointly by NRI (Siemens/Framatome) in collaboration with EdF and a group of German utilities. The development of the design by NRI is being paralleled by a close collaboration between the German and French licensing authorities and the development of a set of requirements by the European utilities. The utilities are giving initial priority to generic requirements for PWRs and specific requirements for the EPR. In order to decouple the design process from variations between sites with respect to the distance of the nearest population to the reactor, and in the dose take-up pathways, EUR (European Atomic Energy Community) set radiological targets for normal operation in term of discharge rather than doses. The targets are set at levels that are stringent, but judged to be achievable on the basis of experience with the best current plants. The collective operator dose target is 0.7 man-Sv per GW-year. Design measures, choice of material and operating procedures are specified to ensure that operator doses are ALARA (As Low As Reasonably Achievable).

*Taken from, "The European Utility Requirements for The Next Generation of Nuclear Plant," by J.A. Board, Nuclear Engineering International, pp. 37-40, Nov. 1993.*