

**APPLICATION OF EXPERIENCE TO THE DESIGN
OF THE STEAM GENERATORS
FOR THE CANDU 9**

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ABSTRACT

The steam generator design being developed for the CANDU 9 reactor has been evolved from the collective experience of well over 3000 steam generator years of CANDU operating experience, plus operating experience from PWR steam generators as well. A progressive approach is being taken to look at optimum steam generator reliability, combined with improved overall plant economics. Rather than simply extrapolating from existing CANDU designs, a completely new design was developed taking into account steam generator technical excellence combined with net cost effectiveness. Net cost effectiveness is measured not only in steam generator costs, but in overall costs of the CANDU plan, considering such things as heavy water holdup, containment size, and even possible impact of the steam generators on plant construction schedule. Such an optimization required close co-operation between the component designers and the overall plant designers. This paper describes the design which evolved, how the design decisions were made, and how the overall CANDU 9 economics were positively impacted through this optimization process.