N37. Approaching Consensus On The Optimum pH For PWRs

Data from operating plants show that increasing primary system pH reduces radiation field buildup rates. But concern about the adverse effects of higher LiOH concentration on cracking in alloy 600 SG tubes has resulted in operating restrictions at higher lithium levels. Now a consensus seems to be developing that gradually increasing pH throughout the cycles gives most of the radiation control benefits, without increasing the risk of alloy 600 cracking or Zircaloy corrosion.

For more, see Wood, C., "Approaching Consensus on the Optimum pH for PWRs," Nucl. Eng. Intl., Vol. 35, No. 433, pp. 28-31, August 1990.