

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES

During an unscheduled shutdown, while performing secondary plant chemistry, the steam generator blowdown chloride concentration exceeded 0.5 ppm. Technical Specifications Section 3.7.1.6 limits the chloride concentration of the secondary water to ≤ 0.5 ppm. The analysis conducted at 1500 hours showed No.'s 1 and 4 steam generator's chloride concentration to be high, 0.55 and 0.60 ppm respectively. By 1700 hours all the steam generators had chloride concentrations that were below the 0.5 ppm limit. Occurrences of this nature have occurred and were reported in LER's 77-13/03L, 77-17/03L, 77-18/03L, 77-22/03L and 78-20/03L.

During the occurrence, all plant systems functioned normally. The chemistry of the secondary water remained optimum for inhibition of chloride-induced stress corrosion cracking; i.e. weakly alkaline and no detectable oxygen. Thus there was no adverse effects on the health and safety of the public.

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS

The root cause of this occurrence is the phenomenon of "hideout" in the steam generators. Impurities enter the steam generators with the feedwater and concentrate in areas of low circulation and steam blanketing. These impurities, of which chloride is one, are only partially removed by blowdown during power operation. At hot standby, the impurities are released into the bulk water. The blowdown rate of the steam generators was increased and the power level was maintained $< 30\%$ to reduce the chloride concentration in all the steam generators. In that this is an operating characteristic of this facility no further actions are deemed necessary at this time.

This occurrence was reviewed by the Plant Operations Review Committee during meeting No. 78-40 held on October 6, 1978. The Committee concurred with the actions taken at the time of the occurrence without further recommendations.