

## **LER 311/82-126**

Event Description: Trip with One Charging Pump Inoperable

Date of Event: October 19, 1982

Plant: Salem 2

### **Summary**

On October 19, 1982 during a routine operation, analysis of a sample of the 21 charging pump lubrication oil revealed that water was mixed with oil in the gear oil reservoir, and the 21 pump was declared inoperable. A leak in the gear oil cooler from erosion and corrosion of the cooler tubes was allowing service water to mix with the gear oil. The 22 charging pump was operable during this event. The accident sequence precursor (ASP) models assume that in order for the high-pressure injection (HPI) system and feed and bleed to function properly using the charging pumps, both pumps (21 and 22) are needed. Since it is not known when the leak in the gear oil cooler occurred, it was assumed that the condition was present during a trip that occurred eight days prior to this event (NUREG-0020). The trip was an automatic scram due to control rod drive (CRD) problems. Main feedwater was not affected. Thus, this event was modeled as a transient with train 3 of HPI and feed and bleed failed. The conditional core damage probability estimated is  $1.1 \times 10^{-6}$ . The dominant sequence involved a successful reactor trip, failure of auxiliary feedwater (AFW), failure of main feedwater (MFW), and failure of feed and bleed.