



ATTACHMENT TO LICENSEE EVENT REPORT NO. 82-015/03L-0

Wisconsin Electric Power Company  
Point Beach Nuclear Plant Unit 1  
Docket No. 50-266

At 1836 hours on September 13, 1982, the Unit 1 letdown gas stripper was taken out of service for maintenance. At 1905 hours on September 14, 1982, while returning the system to service following maintenance, an abnormal fluid level decrease was noted and the operator secured the circulating pump. An increase in the gaseous activity exiting the gas stripper vent stack and an increase in the waste holdup tank level indicated that a leak had occurred. An entry into the gas stripper building was made and with a momentary run of the circulating pump, the leak was confirmed and the location pin-pointed. The leak was near the flange on the high pressure side of a recirculation pump relief valve.

During the event, only a small amount of gaseous activity was released through a monitored stack. The total duration of the release was about 15 minutes and was conservatively calculated to be .0082% of the Technical Specification 15-minute allowable release rate. The gas stripper vent stack monitor increased from a startup level of 500 cpm to about 1500 cpm during the event, which in fact, is below the normal operating level of 2000-3000 cpm. Also, it was calculated that approximately 600 gallons of water was lost from the gas stripper system, which was collected by the floor drain system and pumped to the waste holdup tank.

After the system was secured, drained and vented, the source of the leak was identified as a circumferential break at the radius tangent of a lap joint stub piece. The break location is the typical location for a fatigue failure of this type of joint. The break appeared to be a low cycle high stress break with very little yielding present. The lap joint was replaced with a socket weld flange joint, which has a stress intensification factor that is about 28% less, with a corresponding increase in fatigue life of about five. The repair of the gas stripper was completed on September 15, 1982 and the system was returned to service.

A structural evaluation of the piping in the area of the break revealed that the break location was in fact a high stress area. An evaluation on whether further modifications to the system are necessary is being performed. An evaluation of the same area of the Unit 2 gas stripper piping is also being performed since the piping arrangement is essentially the same. However, due to slightly different support locations, the Unit 2 stress appears to be about 20% less than for Unit 1.

The NRC was notified via the red phone of the event and the NRC Resident Inspector was called.

No measurable personnel exposure or contamination occurred during the event and the total exposure associated with locating the leak and repairing it was 195 mR as recorded by self-reading dosimeters.

This event is being reported as a 30-day Licensee Event Report in accordance with Technical Specification 15.6.9.2.B.4.