1. LER NUMBER: 82-140/03L

II. LASALLE COUNTY STATION: Unit 1

III. DOCKET NUMBER: 050-373

## IV. EVENT DESCRIPTION:

The monitor for Off-Gas Pretreatment was declared inoperable due to water in the sample line which causes loss of sample flow to the detectors. A purge was attempted to clear the line of the water so sample flow could be re-established. The purge was unsuccessful in eliminating the water. The line was then drained and flow re-established with monitor being declared operable. The purge also caused off-gas to enter the room for sampling in the Turbine Building, elevation 754 ft. west column number 9.

## V. PROBABLE CONSEQUENCES OF THE OCCURRENCE:

The health and safety of the public was not affected by the detector being inoperative. Post treatment monitor did not show any radioactivity above normal prior to or during the event. Radio isotopic analysis of Reactor Water did not show any radioactivity above what is expected at this time. Main Steam Line Rad Monitors did not increase appreciably during the event and there were no Area Radiation Monitor alarms in the vicinity of the Off-Gas Pretreatment Monitor. Station Vent Stack Monitor was operative and did not indicate any increase in radioactivity prior to or during the event.

## VI. CAUSE:

The cause of loss of gas flow in the sample line was water in the line blocking flow. The sample that enters this system is close to its dew point. The system takes suction downstream of moisture separator and prior to the 30 minute holdup volume of the Off-Gas system. The gas enters the sampling system at approximately 2 psig and 130°F and a high moisture content. The gas must take a couple pipe size reductions and pipe bends to reach the detector. The gas also has ambient heat losses and becomes more dense. It is this combination of flow restrictions and temperature losses that causes moisture to collect in the sample line and restrict or prevent flow causing an inoperative condition of the detection system.

The purge valve for this system was discovered to have been installed improperly which was the reason for the Off-Gas entering the sample room. The purge valve could not be used to purge the sample line because when it repositioned it stopped flow. (Noted on drawings.)

## VII. CORRECTIVE ACTION:

The sample line was drained and the monitor was restored to operable status. A temporary heat trace has been installed to keep the gas at a higher temperature. The purge valve has been properly installed to allow proper flow through the system. A modification has been written to install permanent heat tracing.

Operating has been advised to purge the sample line periodically and the annunciator procedure has been changed to identify the use of the purge switch.

Prepared by: W. Luett