



- I. LER NUMBER: 83-006/03L-0
- II. LASALLE COUNTY STATION: Unit 1
- III. DOCKET NUMBER: 050-373/374
- IV. EVENT DESCRIPTION:

While performing an inspection of the Outboard Main Steam Isolation Valves, maintenance personnel observed steam leakage from MSIV 1B21-F028a. Upon further investigation, it was determined that two cracks, approximately 180° apart existed in the weld material where 1MS20AA-2" drain line was attached to the valve body.

- V. PROBABLE CONSEQUENCES OF THE OCCURRENCE:

At the time of this event, the unit was in the Start Up Mode heating up at approximately 400°F. The leak was not of sufficient size to cause any VR fan isolations due to high radiation. In addition, no increase in Ventilation Stack Radiation levels was observed. When it was determined that the leak could not be adequately isolated to permit repair, a unit shutdown was commenced. Therefore, the health and safety of the public was not affected and safe operation of the plant was maintained at all times.

- VI. CAUSE:

Analysis by Sargent & Lundy, Systems Materials Analysis Department, Station Nuclear Engineering Department and LSCS revealed the most likely cause of failure to be improper weld application and installation by construction. Although no specific procedural non-complicances were noted, the application of pre-heat treatment, as well as the welding electrode used, were determined less than optimum. Normal vibration was noted as possible in assisting crack propagation.

- VII. CORRECTIVE ACTION:

Work request L22245 was initiated to repair the leak. Using station maintenance procedures, the existing weld was ground out and the connection rewelded. The new weld was ground down to eliminate any notches between passes and magnetic particle examined to ensure no existing cracks remained. Instrumentation was installed on the line to verify that no abnormal vibration amplitude or frequencies exist during normal modes of operation. An 1150 pound hydrostatic test was performed to verify the repair was satisfactory. As a long term corrective action, all main steam line drain to MSIV connections were rewelded and an investigation performed to ensure no other similar installations exist.

Prepared by: Dale Spencer