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QA

March 7, 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
NRC Bulletin 88-11, Action 1.a Results

Gentlemen:

NRC Bulletin 88-11 requires licensees to take actions based on concerns over stratified flow phenomenon in pressurized water reactor plants. The concerns center on the "surge line" between one reactor coolant loop hot leg and the pressurizer. LP&L's response to all requested actions, except one, went to the NRC on August 28, 1989 (re W3P89-1533). The one remaining, Action 1.a of Bulletin 88-11, requires a VT-3 (visual) inspection of the surge line to determine whether any discernible distress or structural damage exists. Stratified flow has bent surge lines at other plants. The term "surge line", in this letter, covers the pipe itself, its supports, whip restraints and anchor bolts.

The VT-3 surge line inspection occurred during the last Waterford refueling outage, specifically on October 3 and 4, 1989. A Level III qualified inspector performed the VT-3 with the assistance of a Level I inspector. A senior engineer experienced in the issue of thermal stratification in pressurizer surge lines supervised the data gathering and reduction. The same senior engineer was also familiar with the Waterford system. The final inspection results became available on January 12, 1990.

The inspectors looked for discernible distress or structural damage by gathering data to compare to 1985 measurements. They took special care at whip restraint locations where contact with the pipe was possible. They examined spring hangers for damage and operability and also recorded their spring settings. Gap measurements at the D-ring wall penetration, and the large and small gap whip restraints were made using a metal ruler with 0.016 inch gradations. The inspectors checked the measurements twice before recording them. These measurements resemble those taken in the 1985 baseline.

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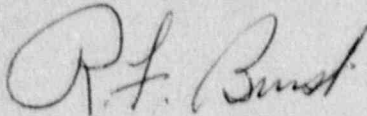
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LP&L possesses a comparison between the 1989 and 1985 measurements. While some of the measurements indicate a possible shift in location, that shift is well within that predicted during initial plant startup. Sliding bearings allow the reactor vessel and steam generator to move away from the construction set location during a heatup and cooldown cycle. Resistance offered by the sliding bearings accounts for equipment not returning to its original position and the shifts seen in the 1989 inspection.

Based on the inspection data review and evaluation dated January 12, 1990, neither the Waterford surge line, nor its affiliated hardware suffered any discernible distress or structural damage. Therefore, the surge line is in a safe operating condition.

If there are any questions regarding this information, please contact me or Mr. Larry Laughlin at (504) 464-3499.

Very truly yours,



RFB/SEF/ssf

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