May 29, 2007

Mr. Glen R. Mills
P.O. Box 3393
Mission Viejo, CA 92690

SUBJECT: RESPONSE TO YOUR LETTER DATED MARCH 21, 2007 - CONCERNS RELATING TO FLAWS IN THE REACTOR COOLANT PRESSURE BOUNDARY

Dear Mr. Mills:

By letter dated March 21, 2007 to the Office of the Inspector General (OIG) of the Nuclear Regulatory Commission (NRC), you described your concerns that the NRC staff is too focused on redundant leak detection systems to identify pressurizer surge line defects and that the staff has ignored defects in the reactor coolant pressure boundary that could experience high growth rates during seismic events. The OIG referred this matter to the NRC Office of Nuclear Reactor Regulation (NRR) as a generic safety concern. The Division of Component Integrity (DCI), NRR, has reviewed your concern and has concluded that NRC requirements in conjunction with staff followup actions in response to reported instances of flaws in the reactor pressure coolant boundary (RCPB) will continue to ensure RCPB integrity during normal operation, transients, and accident events, including seismic. The basis for this conclusion is provided as an enclosure to this letter.

I hope that the information in this letter and the enclosure adequately responds to your concerns.

Sincerely,

/RA/

Michele G. Evans, Director
Division of Component Integrity
Office of Nuclear Reactor Regulation

Enclosure: Statement Of Concerns And NRC Response

CONTACT: Emmett L. Murphy, DCI/CSGB
(301) 415-2710

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DATE	05/ 25/2007	05/ 29 /2007

OFFICIAL RECORD COPY

STATEMENT OF CONCERNS AND NRC RESPONSE

Concern:

"The NRC is too focused on redundant leak detection systems to identify pressurizer surge line defects. The NRC has ignored reactor coolant defects (including steam generator tube) which in normal operating conditions would be of little importance, but whose importance would be suddenly magnified during a seismic event including earthquakes below the design basis of SONGS. Earthquakes of magnitudes below the SONGS design basis can cause extremely high defect growth rates, independent defect growth and growth togetherness."

NRC Response:

In your letter dated March 21, 2007, you note that NRC has issued Confirmatory Action Letters (CALs) on welds to nuclear power plant licensees to resolve concerns regarding flaws in reactor coolant system welds. These CALs were issued to address concerns that flaws may exist in pressurizer nozzle butt welds at some plants. The flaws identified to date have been small such that they would not be expected to cause rapidly propagating failure (either for flaws acting independently or coalescencing among themselves to form a larger flaw) under normal operating, transient, or accident conditions, including seismic loads, consistent with the plant design and licensing basis. The CALs confirmed commitments made by the affected licensees to implement enhanced leakage monitoring until actions are taken to address potential weld flaws. The NRC staff has focused on addressing potential degradation of these welds through near-term inspection to identify degradation or modification of the welds to prevent cracking in this weld material. These actions are scheduled to be completed by the end of 2007. Leakage monitoring is relied upon as a supplementary tool to ensure that if leaks were to occur from these welds, actions would be taken to promptly shutdown the plant.

Regarding the steam generator tubes, the tubes are typically inspected by eddy current test techniques. For the thin-walled tubing, eddy current testing provides a volumetric rather than a surface examination. Eddy current testing is capable of detecting flaws, including stress corrosion cracks, before acceptable margins against rapidly propagating fracture (for flaws acting independently or coalescencing among themselves to form a larger flaw) could be impaired under normal operating, transient, or accident conditions, including seismic loads, consistent with the plant design basis. Again, leakage monitoring is relied upon as a supplementary tool to provide added assurance that tube integrity will be maintained.