

April 29, 2007

Mr. J. A. Stall  
Senior Vice President Nuclear  
and Chief Nuclear Officer  
Florida Power and Light Company  
P.O. Box 14000  
Juno Beach, FL 33408-0420

SUBJECT: TURKEY POINT NUCLEAR PLANT, UNITS 3 AND 4 - PRESSURIZER SURGE,  
SPRAY, SAFETY, AND RELIEF NOZZLE WELD SUSCEPTIBILITY TO  
PRIMARY WATER STRESS CORROSION CRACKING (TAC NOS. MD4192  
AND MD4193)

Dear Mr. Stall:

This letter acknowledges the receipt of information from Florida Power and Light Company (FPL or the licensee) pertaining to the pressurizer surge, spray, safety, and relief nozzle and safe end welds at Turkey Point Nuclear Plant, Units 3 and 4.

The discovery in October 2006 of five circumferential indications in three Alloy 82/182 dissimilar metal (DM) welds on the pressurizer at the Wolf Creek Generating Station (Wolf Creek) raised safety concerns based on the size and location of the indications. At Wolf Creek three indications were in the pressurizer surge nozzle-to-safe end weld and two separate indications were in the safety and relief nozzle-to-safe end welds. In addition, these findings indicated that significant concerns might exist with the inspection schedules for addressing the pressurizer weld concerns issued by the industry-sponsored Materials Reliability Program (MRP) contained in "Primary System Piping Butt Weld Inspection and Evaluation Guideline (MRP-139)."

The Nuclear Regulatory Commission (NRC) is concerned about the pressurizer surge nozzle-to-safe end weld indications, as this is the first time that multiple circumferential primary water stress-corrosion cracking (PWSCC) indications have been identified in a weld. This condition calls into question the degree of safety margin present in past structural integrity evaluations for flawed DM welds susceptible to PWSCC, since multiple stress-corrosion cracking flaws may grow independently and ultimately grow together, significantly reducing the time from flaw initiation to leakage or rupture.

Based on discussions with the NRC staff, licensees of plants susceptible to this condition have committed to an enhanced inspection frequency and reactor coolant system leakage monitoring until actions to mitigate the potential of PWSCC in the affected welds have been completed.

J. Stall

-2-

In your letter dated January 31, 2007, you stated that the pressurizers at Turkey Point Nuclear Plant, Units 3 and 4, do not incorporate Alloy 82/182 butt welds. As a result, your response adequately addresses the NRC concerns at this time regarding PWSCC susceptibility of these welds.

This completes the NRC staff's efforts on TAC Nos. MD4192 and MD4193. If you have any questions, please contact Brenda Mozafari at (301) 415-2020.

Sincerely,

*/RA/*

Catherine Haney, Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251  
License Nos. DPR-31 and DPR-41

cc: See next page

April 29, 2007

In your letter dated January 31, 2007, you stated that the pressurizers at Turkey Point Nuclear Plant, Units 3 and 4, do not incorporate Alloy 82/182 butt welds. As a result, your response adequately addresses the concerns that the NRC has at this time regarding PWSCC susceptibility of these welds.

This completes the NRC staff's efforts on TAC Nos. MD4192 and MD4193. If you have any questions, please contact Brenda Mozafari at (301) 415-2020.

Sincerely,

*/RA/*

Catherine Haney, Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251  
License Nos. DPR-31 and DPR-41

cc: See next page

Distribution:

PUBLIC	LPL2-2 R/F	RidsNrrPMmozafari
RidsNrrLABClayton	RidsNrrDorlLpl2-2	RidsOgcRp
RidsAcrsAcnwMailCenter	RidsRgn2MailCenter	RidsNrrDorl
RidsNrrDci	RidsOEMailCenter	RidsEdoMailCenter
RidsNrrDciCpnb	ESullivan, NRR	TLupold, NRR

ADAMS Accession No.: ML071020423

OFFICE	LPL2-2/PM	LPL2-2/LA	CPNB
NAME	BMozafari	BClayton	TLupold
DATE	04/20/07	04/19/07	04/25/07
OFFICE	LPL2-2/BC	CPNB/BC	DORL/D
NAME	TBoyce	TChan	CHaney
DATE	4/24/07	4/25/07	4/29/07

OFFICIAL RECORD COPY

Florida Power and Light Company

cc:

Mr. William E. Webster  
Vice President, Nuclear Operations  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408-0420

M. S. Ross, Managing Attorney  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408-0420

Marjan Mashhadi, Senior Attorney  
Florida Power & Light Company  
801 Pennsylvania Avenue, NW.  
Suite 220  
Washington, DC 20004

Terry O. Jones  
Site Vice President  
Turkey Point Nuclear Plant  
Florida Power and Light Company  
9760 SW. 344th Street  
Florida City, FL 33035

County Manager  
Miami-Dade County  
111 Northwest 1 Street, 29th Floor  
Miami, Florida 33128

Senior Resident Inspector  
Turkey Point Nuclear Plant  
U.S. Nuclear Regulatory Commission  
9762 SW. 344<sup>th</sup> Street  
Florida City, Florida 33035

Mr. William A. Passetti, Chief  
Department of Health  
Bureau of Radiation Control  
2020 Capital Circle, SE, Bin #C21  
Tallahassee, Florida 32399-1741

Mr. Craig Fugate, Director  
Division of Emergency Preparedness  
Department of Community Affairs  
2740 Centerview Drive  
Tallahassee, Florida 32399-2100

## **TURKEY POINT PLANT**

Attorney General  
Department of Legal Affairs  
The Capitol  
Tallahassee, Florida 32304

Michael O. Pearce  
Plant General Manager  
Turkey Point Nuclear Plant  
Florida Power and Light Company  
9760 SW. 344th Street  
Florida City, FL 33035

James Connolly, Licensing Manager  
Florida Power and Light Company  
Turkey Point Nuclear Plant  
9760 SW. 344th Street  
Florida City, FL 33035

Becky Ferrare  
Licensing Department Administrator  
Florida Power and Light Company  
Turkey Point Nuclear Plant  
9760 SW. 344th Street  
Florida City, FL 33035

Mark Warner, Vice President  
Nuclear Operations Support  
Florida Power and Light Company  
P.O. Box 14000  
Juno Beach, FL 33408-0420

Mr. Rajiv S. Kundalkar  
Vice President - Nuclear Engineering  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408-0420