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AUTH. NAME AUTHOR AFFILIATION
STALL, J.A. Florida Power & Light Co.
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SUBJECT: Forwards supplemental response to GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

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March 11, 1997

L-97-61
10 CFR 50.4
10 CFR 50. 54 (f)

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

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 389
180-Day Summary Description
Generic Letter 96-05

The Florida Power and Light Company (FPL) supplemental response to Generic Letter (GL) 96-05, "*Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves*," for St. Lucie Units 1 and 2 is attached.

By letter, L-96-281 dated October 28, 1996, FPL committed to submit, by March 17, 1997, a written summary description of the motor-operated valve (MOV) periodic verification program established in accordance with the requested action paragraph of the GL.

This letter contains a regulatory commitment to maintain a periodic verification program to ensure safety related MOVs continue to be capable of performing their safety functions within the current licensing basis. The basis for the program activities and frequencies and the justification for any changes will be maintained at the St. Lucie Plant. Please contact us if there are any questions about this submittal.

This response is provided pursuant to the requirements of Section 182a of the Atomic Energy Act of 1954, as amended, and 10 CFR 50.54(f).

Very truly yours,

J. A. Stall
Vice President
St. Lucie Plant

JAS/GRM
Attachment

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant

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STATE OF FLORIDA)
)
COUNTY OF ST. LUCIE) ss.

J. A. Stall being first duly sworn, deposes and says:

That he is Vice President, St. Lucie Plant, for the Nuclear Division of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document, that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.



J. A. Stall

STATE OF FLORIDA
COUNTY OF ST. LUCIE

Sworn to and subscribed before me
this 11th day of March, 1997
by J. A. Stall, who is personally known to me.



Name of Notary Public - State of Florida



KAREN WEST
MY COMMISSION # CC359926 EXPIRES
April 18, 1998
BONDED THRU TROY FAIR INSURANCE, INC.

(Print, type or stamp Commissioned Name of Notary Public)

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St. Lucie Units 1 and 2
Periodic Verification of Motor-Operated Valve (MOV) Design Basis Capability
Program Summary Description

In accordance with NRC Generic Letter (GL) 96-05, *Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves*, St. Lucie has reviewed the effectiveness of the MOV periodic verification program. This program verifies on a periodic basis that safety-related MOVs continue to be capable of performing their safety functions within the current licensing basis. The program was established as part of the St. Lucie response to GL 89-10. The review was performed to ensure that degradation can be properly identified and accounted for within the periodic verification program. As a result of this review, St. Lucie has enhanced the program, incorporating the guidance and information provided in GL 96-05 and industry experience. The resulting program blends a strong preventive maintenance program, and a mixture of static and dynamic (in-situ) diagnostic testing, to ensure that potential age-related degradations are identified. Consideration of the safety significance, available margin, and environmental effects were included in the evaluation of the existing periodic verification activity. Industry experience and initiatives, such as the Joint Owners Group (JOG) effort on periodic verification, will be monitored to ensure that the St. Lucie MOV program incorporates industry experience and lessons learned. One hundred fifty-one MOVs, the entire scope of MOVs in the GL 89-10 Program, are included in the periodic verification program for GL 96-05.

The focus of the periodic verification activities is on the risk significant and low margin valves. The MOVs within the scope of GL 89-10 were classified into high, medium, and low risk significance categories. The prioritization of the MOVs was completed using both probabilistic risk assessment and deterministic insights. As allowed by GL 89-10 Supplement 6, the MOVs were grouped where practical to reduce the scope of dynamic testing. From this grouping, prototype valves were selected for initial and periodic verification testing. For all the valves which were not practical to dynamically test, the Electric Power Research Institute (EPRI) Performance Prediction Methodology (PPM) was utilized to predict valve performance. The non testable valves evaluated using the EPRI methodology are considered to be high margin valves.

Potential degradations which may result in an increase in thrust or torque requirements or a decrease in motor actuator capability will be continually monitored to ensure the valves are capable of performing their safety functions within the current licensing basis. This will be accomplished by the St. Lucie preventive maintenance (PM) program using a combination of static and dynamic testing with trending of the data and feedback to both the PM and testing programs. Overall, it is desirable to perform dynamic testing on a periodic basis to collect data applicable to the overall MOV Program. The entire population of prototype valves initially selected for testing have been dynamically tested. For verification testing, a sample population of high and medium risk significant low margin valves will be dynamically tested once every three cycles to maximize the safety benefit of the testing. The tested valves will be wedge gate and butterfly type

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valves. Low safety significant valves may continue to be included in the population provided there is a clear benefit to safety or a contribution to the overall MOV Program.

The periodic verification activities will include:

1. Stem lubrication once every refueling cycle for all MOVs.
2. Static verification testing for all MOVs once every three refueling cycles.
3. Actuator inspection and refurbishment (if required) every 2 refueling cycles for MOVs in non-severe environments.
4. Actuator inspection and refurbishment (if required) every refueling cycle for MOVs in severe environments.
5. Dynamic testing once every three refueling cycles for a sample population of high and medium risk significant MOVs with low margin.
6. Trending of trouble and breakdown, actuator inspection results and specific static and dynamic test data.
7. Additional dynamic testing, static testing, or other testing as deemed necessary and useful by the MOV Coordinator.

The periodic verification program is a continuing and evolving program. The maintenance and testing periods are expected to change. Changes to the program will be justified based on operating experience, trending, and testing results. In addition, changes to test methods or industry experience may dictate changes to the periodic verification program. The scope of the periodic verification program includes all of the valves within the GL 89-10 program. The program addresses all the elements of GL 96-05 and provides for a blend of maintenance, static and dynamic testing, and trending of specific parameters to assure overall MOV capability. The program is focused, utilizing risk significance and margin to determine the appropriate verification activities and frequency. St. Lucie will continue to monitor and support industry initiatives, such as the JOG Periodic Verification Program, to incorporate industry experience and lessons learned into the program. The specific activities and frequencies which form the current periodic verification program are not commitments. The St. Lucie Plant commitment is to maintain a periodic verification program to ensure safety-related MOVs continue to be capable of performing their safety functions within the current licensing basis. The basis for the program activities and frequencies and the justification for any changes will be maintained by St. Lucie Plant.



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