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50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
AUTH.NAME AUTHOR AFFILIATION
GOLDBERG,J.H. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Forwards response to GL 89-10,Suppl 5, "Inaccuracy of MOV Diagnostic Equipment." Revised errors associated w/torque switch repeatability,as specified in Limitorque Maint Update 92-02,incorporated in plant MOV diagnostic test procedure.

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TITLE: Response to Generic Ltr 89-10, "Safety-Related MOV Testing & Surveill

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Florida Power & Light Company, P.O. Box 14000, Juno Beach, FL 33408-0420

FPL

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L-93-230
10 CFR 50.4
10 CFR 50.54(f)

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

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Safety-Related Motor-Operated Valve
Testing and Surveillance -
Generic Letter 89-10, Supplement 5 Response

The Florida Power and Light Company (FPL) response to Generic Letter (GL) 89-10, Supplement 5, "Inaccuracy of Motor-Operated Valve Diagnostic Equipment," for Turkey Point Units 3 and 4 is attached.

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

Should there be any questions please contact us.

Very truly yours,

J. H. Goldberg
President
Nuclear Division

JHG/OIH

cc: Stewart D. Ebneter, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant

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Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Generic Letter 89-10, Supplement 5 Response

STATE OF FLORIDA)
) ss.
COUNTY OF PALM BEACH)

J. H. Goldberg being first duly sworn, deposes and says:

That he is President, Nuclear Division,
of Florida Power and 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. H. Goldberg

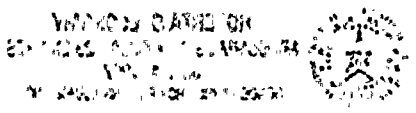
Subscribed and sworn to before me this
30 day of September, 1993.

Roberta S Economy
ROBERTA S. ECONOMY
Name of Notary Public (Type or Print)
NOTARY PUBLIC, in and for the County of
Palm Beach, State of Florida

ROBERTA S. ECONOMY
MY COMMISSION # CC283823 EXPIRES
June 1, 1997
BONDED THRU TROY FAIN INSURANCE, INC.

My Commission expires_____
Commission No._____

J. H. Goldberg is personally known to me.



Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Generic Letter 89-10, Supplement 5 Response

ATTACHMENT

NRC Requested Action 1:

On the basis of the new information on MOV diagnostic equipment inaccuracy discussed in this letter, licensees are requested to reexamine their MOV programs and to identify measures taken or planned to account for uncertainties in properly setting valve operating thrust to ensure operability. Licensees should not limit their evaluation to only the specific examples of increased inaccuracy of MOV diagnostic equipment provided in the Discussion section of this GL supplement, but should consider any information reasonably available to them.

FPL Response 1:

The Turkey Point Units 3 and 4 MOV Program has addressed the following MOV diagnostic equipment inaccuracy issues:

1. By letter dated February 28, 1992, ITI MOVATS notified FPL of a Potential Issue related to the use of the Motor Operated Valve (MOV) spring pack open-calibration Methodology. Since FPL had utilized the ITI MOVATS MOV spring pack open-calibration methodology to set the torque switches of essentially all Turkey Point Units 3 and 4 MOVs, the notification was deemed to be applicable. Accordingly, the ITI MOVATS notification was treated as a potential 10 CFR 21 notification and was dispositioned in accordance with FPL procedures for Part 21 defects. A substantial safety hazard (SSH) evaluation to address the potential for MOV underthrusting was completed within 60 days for all Turkey Point MOVs utilizing the ITI MOVATS spring pack open-calibration methodology. A calculation was performed in accordance with the methodology prescribed in ITI MOVATS Engineering Report (ER) 5.2 to determine the impact of the potential MOV underthrust on MOV operability and supported the conclusions of the SSH evaluation. The SSH evaluation concluded that, in all cases, operability of the affected systems was maintained and accordingly, the ITI MOVATS notification was not reportable under 10 CFR 21.

   Subsequently, the subject calculation and the SSH evaluation were revised to address the potential for valve overthrusting as a result of increased ITI MOVATS diagnostic equipment errors. The revision to these documents also concluded that increased MOV delivered thrust as a result of considering the revised spring pack open-calibration error methodology did not result in an overthrust condition for any tested MOVs.

2. Since the issuance of the ITI MOVATS notification concerning the increased errors associated with the spring pack open-calibration methodology, Turkey Point began to primarily utilize the ITI MOVATS Torque Thrust Cell (TTC) in the performance of MOV diagnostic testing. In addition to the TTC, Turkey Point utilizes the ITI MOVATS Stem Strain Rings (SSR) and Stem Load Sensors (SLS) where the specific application dictates. In all cases, Turkey Point utilizes the sensor accuracy values published by ITI MOVATS in MOVATS ER 5.0. These sensor accuracy claims have been validated during Idaho National Engineering Laboratory (INEL) testing.

   For those MOVs which only the Thrust Measuring Device (TMD)/Load Cells can be used, the spring pack open-calibration methodology is used. The errors associated with this method are derived from the ITI MOVATS ER 5.2.

   Turkey Point also utilizes Teledyne supplied strain gages that are bonded to the unthreaded portion of the valve stem. Turkey Point utilizes the sensor accuracy values published by Teledyne in the Teledyne Technical Report TR-A716-A-1.

   The appropriate ITI MOVATS errors and Teledyne Strain gage accuracy information identified above has been incorporated into the Turkey Point MOV diagnostic test procedure.

3. Revised errors associated with torque switch repeatability, as specified in Limitorque Maintenance Update 92-02, have been incorporated in the Turkey Point MOV diagnostic test procedure.

4. NRC Information Notice (IN) 93-54, "Motor-Operated Valve Actuator Thrust Variations Measured With a Torque Thrust Cell and Strain Gage", discusses the differences in stem thrust measurements taken with the ITI MOVATS TTC and stem mounted strain gages. As discussed in the notice, this issue was discovered while MOV testing was being performed during a refueling outage at Turkey Point. The condition described in IN 93-54 was appropriately evaluated at the time of discovery. The engineering evaluation concluded that, with two exceptions, the MOVs diagnostically tested in this configuration were deemed operable. The two affected valves were satisfactorily retested prior to Unit restart.

   As a result of this issue, several changes to the Turkey Point MOV program in the areas of stem lubricant and diagnostic testing were made. These changes were made to further minimize the potential for thrust variations as a result of TTC installation from occurring.

NRC Requested Action 2:

Licensees are requested to evaluate the schedule necessary (a) to consider the new information on MOV diagnostic equipment inaccuracy and (b) to respond to that information.

Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Generic Letter 89-10, Supplement 5 Response

FPL Response 2:

FPL has completed its evaluation of the information on MOV diagnostic equipment inaccuracy and has incorporated the necessary actions into the GL 89-10 MOV testing program for Turkey Point Units 3 and 4.

NRC Reporting Requirement 1:

Within 90 days of receipt of this letter, all licensees are required to notify the NRC staff of the diagnostic equipment used to confirm the proper size, or to establish settings, for MOVs within the scope of GL 89-10.

FPL Response - Reporting Requirement 1:

FPL has historically used the ITI MOVATS TMD/Load Cell utilizing the spring pack open-calibration methodology to confirm or establish switch settings for MOVs within the scope of GL 89-10 for Turkey Point Units 3 and 4.

During the 1992 Turkey Point Unit 3 Cycle 13 and the 1993 Unit 4 Cycle 14 refueling outages, FPL began using and will continue to use the ITI MOVATS Torque Thrust Cells, Stem Strain Rings, Load Cells, Stem Strain Transducers, Stem Load Sensors, TMD/Load Cell, and Teledyne Strain Gages, to confirm or establish settings for MOVs within the scope of GL 89-10 for Turkey Point Units 3 and 4.

NRC Reporting Requirement 2:

Within 90 days of receipt of this letter, licensees are required to report whether they have taken actions or plan to take actions (including schedule and summary of actions taken or planned) to address the information on the accuracy of MOV diagnostic equipment.

FPL Response - Reporting Requirement 2:

The FPL response to the requested actions above fulfills this reporting requirement.