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SAGER, D.A. Florida Power & Light Co.
RECIP. NAME RECIPIENT AFFILIATION
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SUBJECT: Application for amends to licenses DPR-67 & NPF-16. Amends would extend allowed outage time for inoperable EDGs.

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June 21, 1995

L-95-148
10 CFR 50.90

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

RE: St. Lucie Unit 1 and Unit 2
Docket Nos. 50-335 and 50-389
Proposed License Amendments
Emergency Diesel Generator AOT Extension

Pursuant to 10 CFR 50.90, Florida Power & Light Company (FPL) requests to amend Facility Operating Licenses DPR-67 and NPF-16 for St. Lucie Unit 1 and Unit 2, respectively, by incorporating the attached Technical Specifications (TS) revisions. The proposed amendments will revise the action statements for a single inoperable Emergency Diesel Generator (EDG), TS 3.8.1.1.b, to extend the allowed outage time (AOT) from 72 hours to 7 days, and permit a 10 day AOT to be used once per refueling cycle. This proposal is a result of a cooperative study by participating Combustion Engineering Owners Group members which concluded that the proposed AOT extension improves plant operational flexibility while adequately controlling overall plant risk.

It is requested that the proposed amendments, if approved, be issued by February 29, 1996.

Attachment 1 is an evaluation of the proposed changes. Attachment 2 is the "Determination of No Significant Hazards Consideration." Attachments 3 and 4 contain copies of the appropriate technical specifications pages marked up to show the proposed changes. Enclosed with this submittal is a copy of CE-NPSD-996 "Joint Applications Report for Emergency Diesel Generators AOT Extension," May, 1995.

The proposed amendments have been reviewed by the St. Lucie Facility Review Group and the FPL Company Nuclear Review Board. In accordance with 10 CFR 50.91 (b) (1), copies of the proposed amendments are being forwarded to the State Designee for the State of Florida.

Please contact us if there are any questions about this submittal.

Very truly yours,

D. A. Sager
Vice President
St. Lucie Plant

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DAS/RLD

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Enclosure

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC.
Senior Resident Inspector, USNRC, St. Lucie Plant.
Mr. W.A. Passetti, Florida Department of Health and
Rehabilitative Services.

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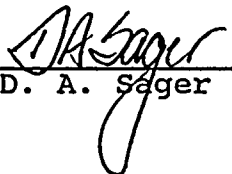
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STATE OF FLORIDA)
)
COUNTY OF ST. LUCIE) ss.

D. A. Sager 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.



D. A. Sager

STATE OF FLORIDA
COUNTY OF ST. LUCIE

The foregoing instrument was acknowledged before me this 21 day of June, 1995 by D.A. Sager, who is personally known to me and who did take an oath.



KAREN WEST
Name of Notary Public

My Commission expires 4-18-98
Commission No. CC 359926



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



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

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ATTACHMENT 1

EVALUATION OF PROPOSED TS CHANGES

EVALUATION OF PROPOSED TS CHANGES

Introduction

Florida Power and Light Company (FPL) requests that Appendix A of Facility Operating License DPR-67 for St. Lucie Unit 1 (PSL1) and NPF-16 for St. Lucie Unit 2 (PSL2) be revised to extend the action completion/allowed outage time (AOT) for a single inoperable Emergency Diesel Generator (EDG) from 72 hours to 7 days. In addition, a one time AOT of 10 days would be permitted per refueling cycle. The purpose of the AOT extension is to enhance overall plant safety by averting potential unscheduled plant shutdowns, and by providing for increased flexibility in scheduling and performing maintenance and surveillance activities. The proposed AOT extension is based on the results of a cooperative study performed by participating members of the Combustion Engineering Owners Group (CEOG). The study included an integrated review and assessment of plant operations, deterministic design basis factors, and overall plant risk using Probability Safety Assessment (PSA) techniques.

Description of Proposed PSL1 and PSL2 TS Changes

The following proposed changes apply to both PSL1 and PSL2:

1. TS 3.8.1.1.b: When a single EDG is discovered inoperable, the AOT to restore that EDG to OPERABLE status will be revised from the current 72 hours to "7 days." A footnote will be added to this proposed AOT which provides for an extension, on a once per refueling cycle frequency, *"to a maximum of 10 days from initial discovery of failure to meet the LCO."*
2. Bases page B 3/4 8-1 will be revised to include summary statements regarding the bases for the AOTs.

Background

Each St. Lucie Unit employs two EDG sets dedicated to provide onsite emergency alternating current (AC) power to essential safety systems in the event of a loss of offsite power. Each EDG has a

set arrangement consisting of two diesel engines in tandem with a single generator in the middle. The EDG sets for PSL1 and PSL2 are similar, with minor differences in the engine lubricating oil systems and generator ratings.

The St. Lucie Plant Emergency Diesel Generator Reliability Program is designed to assure that EDG reliability remains greater than or equal to the target reliability associated with 10 CFR 50.63, the "Station Blackout (SBO)" rule. The program provides for monitoring and evaluating EDG performance and reliability, implementing remedial actions if one or more established reliability "trigger values" are exceeded, determining the root-cause and corrective actions for individual EDG failures, and continuous monitoring of EDG unavailability. In addition, FPL is committed to implementing the provisions of the Maintenance Rule (10 CFR 50.61), as it applies to the EDGs and support systems, pursuant to Generic Letter 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators."

Limiting Condition for Operation (LCO) 3.8.1.1, "A.C. Sources," requires two separate and independent EDGs to be OPERABLE in MODES 1, 2, 3, and 4. This redundancy ensures that at least one of the onsite AC power sources will be operable during accident conditions, coincident with an assumed loss of offsite power and single failure of the other onsite AC source. If a single EDG becomes inoperable during the applicable modes, ACTION b of LCO 3.8.1.1 requires the inoperable EDG to be restored to operable status within 72 hours; otherwise, the plant must transition to Hot Standby within the next 6 hours and to Cold Shutdown within the following 30 hours. The 72 hour AOT for a single inoperable EDG is consistent with guidance provided in USNRC Regulatory Guide 1.93, "Availability of Electric Power Sources," December, 1974.

Bases for the Proposed Changes

FPL participated in a CEOG effort to perform an integrated assessment of the impact of extending the AOT for an inoperable EDG from 72 hours to 7 days, with an additional provision for a 10 day AOT limited to a once per refueling cycle frequency. The assessment considered the impact of the AOT extension on deterministic factors associated with applicable plant design bases, and a probabilistic safety assessment of risks involved with

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applicable plant operations. The considerations, assumptions, methodologies, and detailed results of this study are reported in CE NPSD-996, "Joint Applications Report for Emergency Diesel Generators AOT Extension," Final Report CEOG Task 836, prepared for the CE Owners Group, May, 1995, which is enclosed with this submittal.

Plant specific calculations to assess the risk impact of the AOT extension on PSL1 and PSL2 were performed by FPL using current PSA models and methods that were initially developed in response to Generic Letter 88-20, "Individual Plant Examination for Severe Accident Vulnerabilities." CE NPSD-996 contains the results of FPL's plant specific analyses, as well as generic information relevant to the proposed AOT extension that is applicable to both St. Lucie Units. The enclosed report, therefore, forms the justification/basis for the proposed license amendments.

The analyses for PSL1 and PSL2 indicate that continued plant operation with a single EDG out of service will result in a small increase in "at power risk;" however, when the full scope of plant risk is considered, the risk incurred by extending the AOT for the performance of maintenance activities would be offset by risk benefits associated with averting unnecessary plant transitions to Cold Shutdown and/or by reducing risk during shutdown operations. In addition, the proposed AOT extension for the EDG is evaluated as having a negligible impact on the large early radiological release probability for CE Pressurized Water Reactors in the event of a design basis accident. The evaluation reported in CE NPSD-996 recognizes that the precise impact of the proposed AOT will depend upon the specific circumstances of entry into the LCO Action statement, but concludes that the extension provides plant operational flexibility while adequately controlling overall plant risk.

Conclusion

The risk contributions associated with extending the AOT for a single inoperable EDG from 72 hours to 7 days with a once per cycle 10 day AOT have been quantitatively evaluated using the current plant specific Probabilistic Safety Assessment for PSL1 and PSL2. The analyses show that the small increase in the calculated "at power risk" can be offset by averting the risk associated with an

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unnecessary plant transition to Cold Shutdown, and/or reduced risk during shutdown operations that can result from improved flexibility in scheduling and performing surveillance and maintenance activities.

The integrated assessment reported in CE NPSD-996 generally conforms to guidance provided in NUREG/CR-6141, "Handbook of Methods for Risk Based Analyses of Technical Specifications," December, 1994. Relative to the average Core Damage Frequency calculated for the appropriate severe accidents, NUREG/CR-6141 states, "A risk-based AOT assures that the single event and yearly AOT risk contributions are acceptable." FPL believes the proposed AOT qualifies as a beneficial risk-based AOT, and that the proposed amendment is acceptable.

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ATTACHMENT 2

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Pursuant to 10CFR50.92, a determination may be made that a proposed license amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed as follows:

(1) Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed amendments for St. Lucie Unit 1 and Unit 2 will extend the action completion/allowed outage time (AOT) for a single inoperable Emergency Diesel Generator (EDG) from 72 hours to 7 days, with provisions for a 10 day AOT once per refueling cycle. The EDGs are designed as backup AC power sources for essential safety systems in the event of a loss of offsite power. As such, the EDGs are not accident initiators, and an extended AOT to restore operability of an inoperable diesel generator would not increase the probability of occurrence of accidents previously analyzed.

The proposed technical specification revisions involve the AOT for a single inoperable EDG, and do not change the conditions, operating configuration, or minimum amount of operating equipment assumed in the plant safety analyses for accident mitigation. In addition, a Probability Safety Assessment (PSA) was performed to quantitatively assess the risk impact of the proposed amendment. The impact on the early radiological release probability for design basis events was also evaluated. It was concluded that the risk contribution from this proposed AOT is very small, and that the impact will be negligible.

Therefore, operation of either facility in accordance with its proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

(2) Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendments will not change the physical plant or the modes of plant operation defined in either Facility License. The changes do not involve the addition or modification of equipment, nor do they alter the design of plant systems. Therefore, operation of either facility in accordance with its proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety.

The proposed amendments are designed to improve EDG reliability by providing flexibility in the scheduling and performance of preventive and corrective maintenance activities. The surveillance intervals or the operability requirements are not changed by the proposal; only the AOT for a single inoperable EDG will be extended. The proposed changes do not alter the basis for any technical specification that is related to the establishment of, or the maintenance of, a nuclear safety margin. Moreover, an integrated assessment of the risk impact of extending the AOT for a single inoperable EDG has determined that the risk contribution is very small and can be offset by improvements in EDG reliability. Therefore, operation of either facility in accordance with its proposed amendment would not involve a significant reduction in a margin of safety.

Based on the above discussion and the supporting Evaluation of Technical Specification changes, FPL has determined that the proposed license amendments involve no significant hazards consideration.

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ATTACHMENT 3

ST. LUCIE UNIT 1 MARKED-UP TECHNICAL SPECIFICATION PAGES

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Page B 3/4 8-1

NOTE

PAGES 3/4 8-1 AND B 3/4 8-1
CONTAIN CHANGES PREVIOUSLY
SUBMITTED BY FPL LETTER L-95-
087 (4/3/95) PURSUANT TO GL
93-05 AND NUREG -1366. THESE
CHANGES ARE INDICATED BY
VERTICAL LINES IN THE MARGIN,
AND ARE PENDING NRC APPROVAL.