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AUTH. NAME PLUNKETT, T.F. AUTHOR AFFILIATION Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION Document Control Branch (Document Control Desk)

SUBJECT: Application for amends to Licenses DPR-31 & DPR-41, modifying
 TS 3/4.7.1.6, "Standby FW Sys" & associated bases to
 eliminate cranking DGs.

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L-93-200
10 CFR 50.36

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

Gentlemen:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Proposed License Amendments -
Elimination of Cranking Diesel Generators

In accordance with 10 CFR 50.90, Florida Power and Light Company (FPL) requests that Appendix A of Facility Operating Licenses DPR-31 and DPR-41 be amended to modify Turkey Point Units 3 and 4 Technical Specifications 3/4.7.1.6, Standby Feedwater System and the associated bases. The plant change modification involves eliminating the reliance on the five cranking diesel generators and replacing the electric motor driver for one Standby Steam Generator Feedwater pump with a dedicated diesel driver. This modification is being proposed to eliminate high maintenance costs and remove the operational burden associated with the non-safety related Cranking Diesel Generators.

FPL has determined that the proposed license amendments do not involve a significant hazards consideration pursuant to 10 CFR 50.92. A description of the amendment request is provided in Attachment 1. The no significant hazards determination in support of the proposed Technical Specification changes is provided in Attachment 2. Attachment 3 provides the proposed revised Technical Specification changes.


In accordance with 10 CFR 50.91(b)(1), a copy of these proposed license amendments is being forwarded to the State Designee for the State of Florida.

The proposed amendments have been reviewed by the Turkey Point Plant Nuclear Safety Committee and the FPL Company Nuclear Review Board.

Florida Power and Light Company requests that these proposed Technical Specification changes be approved by the NRC no later than June 1, 1994, to facilitate the eliminating of the cranking diesels at Turkey Point as early as January 1, 1995.

Should there be any questions on this request, please contact us.

Very truly yours,


T. F. Plunkett
Vice President
Turkey Point Nuclear

TFP/RJT/rt

Attachments

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Page 2

cc: S. D. Ebnetter, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant
W. A. Pasetti, Florida Department of Health and Rehabilitative
Services

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STATE OF FLORIDA)
) ss.
COUNTY OF DADE)

T. F. Plunkett being first duly sworn, deposes and says:

That he is Vice President, Turkey Point Nuclear Plant, of Florida Power and Light Company, the Licensee herein;

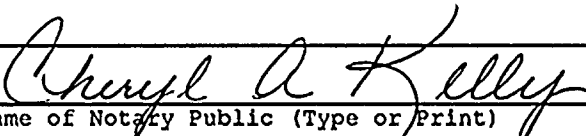
That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.



T. F. Plunkett

Subscribed and sworn to before me this

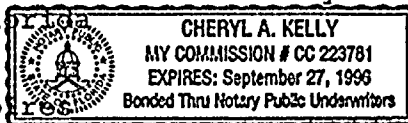
3rd day of Sept., 1993.



Name of Notary Public (Type or Print)

NOTARY PUBLIC, in and for the County of
Dade, State of Florida

My Commission expires
Commission No. _____



T. F. Plunkett is personally known to me.

1944

ATTACHMENT 1
SAFETY ANALYSIS

SAFETY ANALYSIS

1.0 DESCRIPTION AND PURPOSE

During a design basis loss of offsite power (LOOP) event, two of the five Cranking Diesel Generators, located north of the Turkey Point Fossil Units 1 and 2, are available to provide a backup power source to Turkey Point Nuclear Units 3 and 4. These Cranking Diesel Generators are capable of powering the non-safety related "C" 4.16 kV bus by power cables which are independent of switchyard circuits.

Under the current Turkey Point licensing basis, credit is taken for the Cranking Diesel Generators as a reliable backup power source to power the Units 3 and 4 "C" 4.16 Kv bus to meet regulatory requirements, including the following which specifically relate to the Standby Steam Generator Feedwater (SSGF) System :

- (a) Diversity of AFW Pump Drivers from Generic Letter 83-37.

Two 100% capacity electric motor-driven Standby Steam Generator Feedwater (SSGF) pumps, capable of being powered from the C Bus by the Cranking Diesel Generators, are available as a backup water source to provide auxiliary feedwater (AFW) during a loss of offsite power event.

- (b) Fire Protection for the AFW Area to meet 10 CFR 50, Appendix R.

Under the requirements of 10 CFR 50, Appendix R, credit is taken for the SSGF pumps, powered from the C bus by the Cranking Diesel Generators, for a fire affecting AFW equipment operability during a loss of offsite power event.

In order to eliminate the high maintenance costs associated with the non-safety related Cranking Diesel Generators and remove the operational burden from nuclear plant personnel, reliance on the Cranking Diesel Generators will be eliminated by replacing the electric motor driver for one Standby Steam Generator Feedwater pump with a dedicated diesel driver and by repowering various "C" bus loads from safety related power supplies or other buses capable of being powered from the Emergency Power System.

The Standby Steam Generator Feedwater pumps are the only equipment, associated with modifications to eliminate reliance on the Cranking Diesel Generators, which have Technical Specification requirements that address the Cranking Diesel Generators. As a result, this evaluation addresses only the proposed modifications and Technical Specification changes for the Standby Steam Generator Feedwater pumps.

2.0 LICENSING BASIS FOR EQUIPMENT POWERED BY CRANKING DIESEL GENERATORS

2.1 LICENSING AND DESIGN BASES FOR STANDBY STEAM GENERATOR FEEDWATER SYSTEM

The Standby Steam Generator Feedwater (SSGF) System is a quality related system which was designed to supplement the Main and Auxiliary Feedwater Systems in maintaining the heat removal capabilities of the steam generators for cooling the Reactor Coolant System. The SSGF System was originally designed and installed (reference 2) with two SSGF pumps, which are shared by Units 3 and 4 and provide feedwater to the steam generators of both units during normal plant startup, shutdown, and hot standby modes of operation. To meet these requirements, the system was designed and installed as a non-safety related system with commercial grade components and with system construction and maintenance practices meeting applicable industry standards. However, this system also provides a reliable and diverse source for backup feedwater for conditions that are beyond the licensing bases of the Auxiliary Feedwater (AFW) System.

There are no safety related design basis requirements applicable to the SSGF System and system operability is not required to mitigate the consequences of postulated design basis accidents documented in the Updated Final Safety Analysis Report (FSAR). The NRC-approved Technical Specification BASES for Section 3/4.7.1.6 (reference 4) support this safety classification of the SSGF System with the following discussion:

"The motor driven Standby Feedwater Pumps are not designed to NRC requirements applicable to Auxiliary Feedwater Systems and are not required to satisfy design basis events requirements. These pumps may be out of service for up to 24 hours before initiating formal notification because of the extremely low probability of a demand for their operation."

Although originally designed as a non-safety related system, the SSGF System is, however, designed with the following capabilities:

- o The SSGF System is capable of supplying feedwater to both Turkey Point Units 3 and 4 within twenty (20) minutes and maintaining the units in a hot standby condition during certain non-design basis, low probability events, such as, a total loss of all normal and auxiliary feedwater concurrent with a loss of offsite power.
- o Credit is taken for the SSGF System to meet the 10 CFR 50, Appendix R, requirements in the event of a fire in two fire zones containing AFW equipment: (1) the AFW pump and Unit 3 AFW steam admission valve area; and (2) the Unit 4 AFW steam admission valve area.

The SSGF System includes two motor-driven centrifugal pumps capable of delivering adequate flow to the steam generators at a maximum secondary system operating pressure. These pumps take suction from the Demineralized Water Storage Tank by way of the Units 3 and 4 common condensate polishing backwash pump suction line. The 500,000 gallon Demineralized Water Storage Tank is the primary source of water for the SSGF pumps, and makeup to the this tank can be established by way of the water treatment plant, when necessary for either plant to remain in a hot standby condition for an extended period.

The electric motors for the two SSGF pumps, currently receive power from the 3C and 4C 4.16 Kv switchgear, respectively. Upon loss of offsite power, the Units 3 and 4 "C" 4.16 Kv buses can be manually powered from the Cranking Diesel Generators by manual operator actions taken locally (references 2 and 3).

The SSGF pumps are manually started and manually controlled. The pumps may be started from the control room or from the local control panel. Manual isolation valves, closed during normal plant operation, must be opened to align the pumps to the steam generators. After alignment, either or both of the pumps may be operated to serve either Unit 3 or 4 without further valve manipulation, since the feedwater flow can be automatically controlled by the main feedwater bypass control valves.

2.2 TECHNICAL SPECIFICATION BASES FOR STANDBY STEAM GENERATOR FEEDWATER SYSTEM

The Turkey Point Technical Specifications establish operability and surveillance requirements for the availability of the non-safety grade Standby Steam Generator Feedwater pumps and the Demineralized Water Storage Tank. The ability to power the SSGF pumps from the Cranking Diesel Generators and provide flow to the steam generators is confirmed in accordance with Technical Specifications by an 18-month SURVEILLANCE REQUIREMENT.

The Technical Specifications ensure the availability of feedwater to the steam generators, in the event of a beyond the licensing basis loss of all normal and auxiliary feedwater. Under these circumstances, the SSGF pumps would be started, aligned and controlled by the operator manually. In the event of a coincident loss of offsite power, the SSGF pumps can be manually powered from the non-safety related Cranking Diesel Generators via the non-safety related 3C or 4C 4.16 Kv "C" Buses.

The SSGF System is required to supply feedwater to the steam generators within 20 minutes and can supply a minimum of 60,000 gallons of water from the Demineralized Water Storage Tank to remove decay heat from the reactor and maintain either one or both units in hot standby. These requirements are based on the premise that the SSGF System will supply adequate feedwater flow for a time frame sufficient to restore normal or auxiliary

feedwater systems or establish makeup to the Demineralized Water Storage Tank for the type of low probability beyond licensing basis scenario described above.

The Standby Steam Generator Feedwater System is designed with the following features to ensure the Technical Specification objectives and requirements can be achieved :

- o The SSGF system is capable of supplying feedwater to the steam generators within 20 minutes. This time period is sufficient for the operators to manually align power to the C bus from the Cranking Diesel Generators, and to align and initiate flow from the SSGF System. If offsite power remains available, the SSGF system can be initiated in a time frame that is shorter.
- o The Demineralized Water Storage Tank (DWST) will be maintained with a minimum of 60,000 gallons dedicated for use by the SSGF pumps. To meet this requirement, the minimum acceptable volume for the DWST is maintained in accordance with plant procedures (references 3 and 6). This minimum volume conservatively bounds the Technical Specification quantity of 60,000 gallons. The dedicated volume of 60,000 gallons is sufficient to maintain either one or both units in hot standby until another source of feedwater can be restored.
- o The SSGF pump flow capabilities are sufficient to supply the feedwater requirements of both plants from either one or both SSGF pumps for a loss of normal and auxiliary feedwater. A single Standby Steam Generator Feedwater pump can supply sufficient feedwater flow to both units, where a coincident loss of offsite power is postulated.
- o In the existing licensing basis, at least 2 of the 5 Cranking Diesel Generators are available with sufficient dedicated fuel oil onsite.

2.3 FIRE PROTECTION DESIGN BASES ASSOCIATED WITH STANDBY STEAM GENERATOR FEEDWATER SYSTEM

Credit is taken for operability of the Standby Steam Generator Feedwater System to comply with 10 CFR 50, Appendix R requirements in the event of a fire in two fire zones associated with the Auxiliary Feedwater System (AFW). These two fire zones include the AFW pump and Unit 3 AFW steam admission valve area (fire zone 84), and the Unit 4 AFW steam admission valve area (fire zone 79). This requirement is discussed in Updated FSAR Section 2.3.3 of Appendix 9.6A (reference 4), and the Turkey Point Safe Shutdown Analysis (reference 5) and associated plant procedures.

The requirements of 10 CFR 50, Appendix R, apply to safe shutdown systems which must operate with and without a normal source of offsite power. For fires which disable AFW System equipment in one of the two AFW fire zones coincident with a loss of offsite power, the SSGF pumps would be used to safely shutdown the plant using the Cranking Diesel Generators as an alternate to the normal offsite AC power source.

3.0 EVALUATION OF PROPOSED PLANT MODIFICATIONS

3.1 DESIGN MODIFICATIONS FOR STANDBY STEAM GENERATOR FEEDWATER SYSTEM

Several options to eliminate operating reliance on the Cranking Diesel Generators were considered for the Standby Steam Generator Feedwater System. FPL selected the option to remove the electric motor on the "B" SSGF pump and replace this motor with a dedicated diesel driver, while the "A" SSGF pump will remain unchanged with its existing motor driver. The dedicated diesel driver will be sized for the existing "B" Standby Steam Generator Feedwater pump assembly, so that the pump capacity will remain unchanged from the original motor driven pump combination. This will preserve the capacity of the original installation, while enhancing the level of diversity in the types of drivers for the pumps. Since a single Standby Steam Generator Feedwater pump can supply sufficient feedwater flow to both units, redundancy in SSGF pumps is similarly preserved in the new design for events which do not involve a coincidental loss of offsite power.

The electric motor driver for the "B" SSGF pump will be removed and replaced with a dedicated diesel driver, which will be purchased as commercial grade and suitable for outdoor service. The "B" pump was selected, because its physical location will facilitate easier implementation of the plant change modification. The pump and diesel combination will be mounted on a single skid, similar to the original installation, using the existing pump. The new diesel driver for the SSGF pump will be self contained with an integral fuel oil tank. The fuel tank will be sized to ensure that sufficient fuel capacity is available to power the diesel-driven pump for a period which will ensure that 60,000 gallons is used to maintain either one or both units in hot standby until another source of feedwater can be restored. No external cooling water or compressed air for starting will be required. Provisions for a secondary containment to contain a diesel fuel oil tank spill will be incorporated into the design. There will be a local control panel for the diesel driver mounted on the skid as well as start/stop controls for the diesel driver in the main control room. The control room diesel start/stop controls will be located in the same place as the existing controls and indication. The installed diesel-driven SSGF pump will be located on a newly constructed foundation after modifications are completed to facilitate installation of the new skid assembly.

These modifications will serve to preserve existing licensing commitments applicable to the Standby Steam Generator Feedwater System, which are associated with issues of AFW diversity, reliability, backup and fire protection requirements.

3.2 SPECIAL IMPLEMENTATION PROVISIONS DURING STANDBY STEAM GENERATOR FEEDWATER SYSTEM MODIFICATIONS

Current Technical Specifications require that both the Standby Steam Generator Feedwater pumps be operable with a total of at least 60,000 gallons of water available from the Demineralized Water Storage Tank. The Technical Specification operability requirements for the pumps require that with one pump unavailable, this pump shall be restored to operable status within 30 days or a Special Report shall be submitted, in accordance with Technical Specification 3.7.1.6d, which provides the schedule for restoration.

Because installation of a new larger foundation will be necessary to accommodate the new diesel-driven SSGF "B" pump skid and because of pipe rerouting and alignment requirements between the diesel driver and pump, unavailability of the "B" SSGF pump is expected to approach the 30-day Technical Specification limit. In addition, the temporary removal of piping to accommodate the new pump skid may result in the temporary unavailability of both SSGF pumps due to the location of the existing pump discharge valve. Since Technical Specifications require a 4-hour notification if both pumps are taken out of service, the NRC will be notified in advance of the actual construction activities on the pumps.

These temporary SSGF system configurations are not expected to significantly reduce system reliability for the functions performed by the SSGF system. Under emergency conditions, the SSGF system's primary function is to provide a backup to the AFW system for very low probability beyond licensing basis events which involve the loss of all normal feedwater and all auxiliary feedwater. Since these beyond licensing basis events are low probability events which require multiple malfunctions to proceed, a small increase (due to the short out of service time expected) in the unavailability of the SSGF system will not have a significant impact on the overall frequency of core melt.

The SSGF system also functions within the plant's Appendix R design basis to provide a backup for the Auxiliary Feedwater System in the event there is a fire in any one of two critical AFW equipment areas. During the period, in which both SSGF pumps are out of service, compensatory fire protection measures will be implemented to compensate for this loss of AFW back-up.

3.3 FLOOD SURGE AND HURRICANE PROTECTION FOR STANDBY STEAM GENERATOR FEEDWATER PUMPS

The existing Standby Steam Generator Feedwater pumps are located in an outdoor area just south of the Unit 4 Condensate Storage Tank. The nominal ground elevation in this area is 17'-6", with the existing concrete pump foundation extending up to elevation 18'-8". Each existing pump and associated motor driver is located on a common skid pad, which was fabricated to be 8-inches high and lifts the pump and its motor driver to an elevation of 19'-4".

The reconfigured diesel-driven "B" SSGF pump combination will be located on a newly constructed foundation after modifications are completed to facilitate installation of a new skid pad assembly. The new foundation and skid pad will be placed in the same relative location as the original motor-driven pump assembly and will be designed, such that, the existing "B" SSGF pump and its diesel driver will be mounted at the same elevation (i.e., 19'-4") or higher than the existing motor-driven pump assembly.

The Updated FSAR (Appendix 5G of reference 7) documents that the maximum flood stage resulting from the maximum probable hurricane is 18.3 feet above Mean Low Water (MLW). Since the pumps are located behind various barriers and structures, which would shield the pumps from any significant wave runup, the SSGF pumps and the associated dedicated "B" pump diesel would be expected to survive the maximum predicted water elevations from a 100-year hurricane flood tide. The Standby Steam Generator Feedwater pumps/drivers and any associated enclosure for the diesel driver on the "B" SSGF pump are classified as Class III structures/equipment and would not be designed to withstand any seismic loads. These pumps and any associated enclosure will be designed for wind loads in accordance with the South Florida Building Code, which has a basic design pressure of 37 pounds per square foot (120 miles per hour winds). No tornado load or missile protection design features will be applied to the modifications to the SSGF pumps.

3.4 FIRE PROTECTION FEATURES FOR DIESEL-DRIVEN STANDBY STEAM GENERATOR FEEDWATER PUMP

The existing Standby Steam Generator Feedwater pumps are located in an outdoor area just south of the Unit 4 Condensate Storage Tank adjacent to fire Zones 77 and 125. Fire Zone 77 is an outside fire zone, which contains the Unit 4 Condensate Storage Tank, and associated Condensate Transfer pump and Condensate Recovery Tank and pump. Fire Zone 125 is an outside area which contains no safety related equipment or systems.

As part of the modifications, the electric motor driver for the "B" SSGF pump will be removed and replaced with a dedicated diesel driver, which will be purchased as commercial grade and

suitable for outdoor service. The diesel-driven "B" SSGF pump combination will be located on a newly constructed foundation after modifications are completed to facilitate installation of a new skid assembly. The diesel driver for the "B" SSGF pump will be self contained with an integral fuel oil tank on the same skid pad. Provisions for a secondary containment to accommodate leakage from the diesel fuel oil tank will be included in the redesign of the "B" SSGF pump.

The skid-mounted diesel-driven SSGF pump assembly with integral fuel oil storage tank and secondary containment will be located more than 20 feet to the south of the Unit 4 Condensate Storage Tank. This will place the skid mounted fuel oil tank for the diesel-driven SSGF pump more than 50 feet away from the closest redundant safety related equipment and system(s) (AFW equipment in Fire Zone 113) required for the safe shutdown of the plant (references 9 and 10). This outside location meets the basic separation requirements for fuel oil tanks that are identified in Appendix A to Branch Technical Position CMEB 9.5-1 (references 4 and 11). Therefore, should a fire develop from a rupture of the diesel driver's fuel oil storage tank, this fire will not have any effect on equipment or systems required to meet the safe shutdown requirements of 10 CFR 50, Appendix R.

3.5 PROBABILISTIC RISK ASSESSMENT FOR ELIMINATION OF CRANKING DIESEL GENERATORS

A probabilistic risk assessment study was performed to review the proposed plant modifications for the elimination of reliance on the Cranking Diesel Generators (reference 8). This study considered the use of a more realistic offsite power recovery model by taking into account the time dependent nature of the various combinations of failure and recovery events. Updated plant-specific diesel generator performance data was also used for this assessment.

From a risk standpoint, the Turkey Point Cranking Diesel Generators make a difference only when a loss of offsite power occurs, followed by failure of all the Emergency Diesel Generators, i.e., a station blackout event occurs. The probability of a station blackout is extremely low with the four Emergency Diesel Generators and "station blackout" cross-ties which are installed between Turkey Point Units 3 and 4. The replacement of one motor-driven SSGF pump with an equivalent dedicated diesel-driven pump reduces the risk associated with loss of decay heat removal capabilities.

The results of this probabilistic risk assessment study demonstrate that the proposed modifications to eliminate reliance on the Cranking Diesel Generators will result in a 0.4% reduction in the current calculated core damage frequency of $5.72\text{E-}5$ per year. This marginal decrease in core damage frequency may be attributed to the dominance of scenarios involving loss of AFW

coincident with loss of offsite power over scenarios involving station blackout. This is also the result of an inherently more reliable configuration with a direct-drive diesel for the "B" SSGF pump compared with a configuration in which the Cranking Diesel Generators must be manually connected to the "C" 4.16 Kv bus.

From a risk perspective, FPL has concluded that the elimination of reliance on the Cranking Diesel Generators will make no significant change in the risk to the plant, and the margin of safety inherent in the plant design has, therefore, not been reduced.

4.0 PROPOSED TECHNICAL SPECIFICATION REVISIONS

Changes will be required in plant Technical Specifications to replace references to the Cranking Diesel Generators with a discussion of the new diesel driver intended for the Standby Steam Generator Feedwater System (SSGF "B" pump). Refer to Attachment 3 for the proposed changes in plant Technical Specifications. Revisions for the affected portions of this licensing document are described below.

As a result of NRC concerns regarding auxiliary feedwater reliability identified in a 1985 Safety Functional Inspection Report, FPL committed to develop a Technical Specification to better ensure this system's continued availability, by providing a backup source of feedwater in the form of the Standby Steam Generator Feedwater System. In its current form, the SSGF System Technical Specification 3.7.1.6 includes SURVEILLANCE REQUIREMENTS that involve the Cranking Diesel Generators. In addition, the Technical Specification BASES for Section 3.7.1.6 refer to the Cranking Diesel Generators. As a result, the SURVEILLANCE REQUIREMENTS and the BASES for Technical Specification Section 3/4.7.1.6 are being revised to replace the SURVEILLANCE and BASES discussions applicable to Cranking Diesel Generators with equivalent requirements and a discussion applicable to the dedicated diesel-driven configuration for SSGF "B" pump.

FPL proposes to change the following Technical Specifications in support the proposed amendments:

1. TABLE OF CONTENT (Pg. x), T.S. 3/4.7.1.6, and the associated BASES: Add the words "Steam Generator" between the words "Standby" and "Feedwater"

Justification: The proposed changes are administrative in nature to ensure a more accurate description of the plant system.

2. Technical Specification 3.7.1.6 b: - Revise the wording for the inoperability of both standby steam generator feedwater pumps to be consistent with the NRC's original Safety Evaluation Report and the Technical Specification BASES.

Justification - An administrative change in the wording of Technical Specification 3.7.1.6 b is proposed to more accurately reflect the original intent of the operability requirements for two SSGF pumps out of service. The current language of Turkey Point Technical Specification implies that upon discovery of both pumps being in a condition which would place them out of service, that this condition is reportable to the NRC within 24 hours. The language of the current Technical Specification allows no time or opportunity to restore the pumps to an operable status. This was clearly not the intent of the original design bases as approved by the NRC, which state that "the guidelines for NRC notification in case of both pumps being out of service for longer than 24 hours are provided in applicable plant procedures, as a voluntary 4-hour notification." In addition, the original NRC Safety Evaluation for the SSGF license amendment states that "with both pumps unavailable ... , the problems will be corrected within 24 hours or a Special Report be submitted to the NRC which includes details of the corrective actions."

Consequently, the proposed changes are considered administrative in nature and contain language which properly reflect the operability and reporting requirements as originally intended by the NRC.

3. Technical Specifications 4.7.1.6.3 and 4.7.1.6.4: Remove the reference to Cranking Diesel Generators and replace with requirements applicable to dedicated diesel-driven Standby Steam Generator Feedwater "B" pump.

Justification: Technical Specifications 3/4.7.1.6 assure operability of the non-safety grade Standby Steam Generator Feedwater System. The function of the SSGF System for operability determinations is that it is a reliable backup to the Auxiliary Feedwater (AFW) System in the event the AFW System does not function properly. The SSGF System consists of commercial grade components designed and constructed to industry and FPL standards for the class of equipment located in an outdoor environment typical of FPL facilities system wide.

Consistent with FPL's reliability objectives for the Standby Steam Generator Feedwater System, additional SURVEILLANCE REQUIREMENTS, contained in Technical Specification 4.7.1.6.4, for the diesel driver on the B SSGF pump have been proposed. These requirements will ensure that the

operability of the diesel driver for the B Standby Steam Generator Feedwater pump is verified at the same time that staggered testing is performed on the pump itself. In addition, at least once per each 18 months an inspection of the diesel driver will be conducted in accordance with plant procedures prepared based on the diesel manufacturer's recommendations. The overall effect of these SURVEILLANCE REQUIREMENTS will be to enhance the level of verifications performed by plant personnel to establish equipment operability.

4. Technical Specification BASES 3/4.7.1.6 - Remove all reference to Cranking Diesel Generators and replace with an explanation of the requirements applicable to dedicated diesel-driven Standby Steam Generator Feedwater "B" pump.

Justification - Consistent with FPL's reliability objectives for the Standby Steam Generator Feedwater System, additional SURVEILLANCE REQUIREMENTS, contained in Technical Specification 4.7.1.6.4, for the diesel driver on the B SSGF pump have been proposed. These requirements will ensure that the operability of the diesel driver for B Standby Steam Generator Feedwater pump is verified at the same time that staggered testing is performed on the pump itself. In addition, at least once per each 18 months an inspection of the diesel driver will be conducted in accordance with plant procedures prepared based on the diesel manufacturer's recommendations. Consistent with the changes in operability and SURVEILLANCE REQUIREMENTS, BASES 3/4.7.1.6 has been revised to remove the reference to Cranking Diesel Generators. This has been replaced with an explanation of the requirements and design bases applicable to the dedicated diesel-driven SSGF "B" pump.

The above changes in plant Technical Specifications will serve to preserve existing licensing commitments applicable to the Standby Steam Generator Feedwater System, which are associated with issues of AFW diversity, reliability, and backup feedwater requirements.

5.0 REFERENCES

1. Turkey Point Units 3 and 4 Technical Specification Section 3/4, "Limiting Conditions for Operation/Surveillance Requirements and Associated Bases Sections", Amendments 154/148, effective July 15, 1993.
2. Turkey Point Units 3 and 4 PC/M 82-296, "Addition of Standby Steam Generator Feedpumps", Revision 0, dated March 18, 1983.
3. Turkey Point Operating Procedure 0-ONOP-074.1, "Standby Steam Generator Feedwater System Operation with Loss of Offsite Power and Loss of Auxiliary Feedwater", dated June 24, 1993.
4. Turkey Point Units 3 and 4 Updated Final Safety Analysis Report (UFSAR), Appendix 9.6A, "Fire Protection Program Report", Revision 10, dated July, 1992.
5. Turkey Point Units 3 and 4 Drawing 5610-M-722, "Appendix R Safe Shutdown Analysis", Revision 1, dated July 17, 1992.
6. Turkey Point Operating Procedure 0-OP-074.1, "Standby Steam Generator Feedwater System", dated April 6, 1993.
7. Turkey Point Units 3 and 4 Updated Final Safety Analysis Report (UFSAR), Revision 10, dated July 1992.
8. Engineering Calculation PTN-BFJR-93-009 for Turkey Point Units 3 and 4, "A Sensitivity Study of Risk Impact for Eliminating the Blackstart Diesels", Revision 0, dated July 30, 1993.
9. Engineering Drawing 5610-C-375, "Yard Tanks & Misc. Equip. Foundation Details", Revision 7, dated January 15, 1992.
10. Engineering Drawing 5610-C-1222, "Standby Steam Generator Feed Pump Addition/Plan-Sections & Details", Revision 7, dated January 15, 1992.
11. NRC Branch Technical Position CMEB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants", Revision 2, dated July 1981.

ATTACHMENT 2

DETERMINATION OF NO SIGNIFICANT HAZARDS DETERMINATION

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Description of Proposed License Amendments

In order to eliminate the high maintenance costs associated with the non-safety related Cranking Diesel Generators and remove the operational burden from nuclear plant personnel, reliance on the Cranking Diesel Generators will be eliminated by replacing the electric motor driver for one Standby Steam Generator Feedwater pump with a dedicated diesel driver and by repowering various "C" bus loads from safety related power supplies or other buses capable of being powered from the Emergency Power System.

The Standby Steam Generator Feedwater pumps are the only equipment, associated with modifications to eliminate reliance on the Cranking Diesel Generators, which have Technical Specification requirements that address the Cranking Diesel Generators. As a result, this proposed license amendment addresses only the proposed modifications and Technical Specification changes for the Standby Steam Generator Feedwater Pumps.

Since this evaluation involves changes to remove references to the Cranking Diesel Generators as contained within plant Technical Specifications, an evaluation under the NRC criteria of 10 CFR 50.92 has been performed. This evaluation demonstrates that the above changes in plant Technical Specifications will serve to preserve existing licensing commitments applicable to the Standby Steam Generator Feedwater System, which are associated with issues of AFW diversity, reliability, backup feedwater, and fire protection requirements.

Introduction

The Nuclear Regulatory Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92 (c)). A proposed amendment to an operating license for a facility 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 below for the proposed amendments.

Discussion

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

The Cranking Diesel Generators serve to provide a backup power source for the Standby Steam Generator Feedwater System, which

has been designed to provide emergency feedwater to the steam generators for beyond licensing basis events under conditions where normal and auxiliary feedwater have been lost coincident with a loss of offsite power. The SSGF System also ensures an orderly plant shutdown to meet the requirements of 10 CFR 50, Appendix R, by providing a source of feedwater under conditions where a fire has damaged the AFW System.

Since the proposed Standby Steam Generator Feedwater pump modifications and associated Technical Specification operability/surveillance requirements enhance the diversity of pump drivers and preserve the capacity, location, and reliability of the subject SSGF pumps, these modifications will serve to ensure that the consequences of the beyond licensing basis events for which they were intended have not been increased. In addition, these modifications preserve existing licensing commitments applicable to the Standby Steam Generator Feedwater System, which are associated with issues of AFW diversity, reliability, and backup feedwater and fire protection requirements.

A probabilistic risk assessment (reference 8) has been performed for installation of one dedicated diesel-driver for the "B" Standby Steam Generator Feedwater pump and for elimination of reliance on the Cranking Diesel Generators as a backup source of power for the Standby Steam Generator Feedwater pumps. The results of this risk assessment study demonstrate that the proposed modifications will result in a 0.4% reduction in the current calculated core damage frequency of $5.72\text{E-}5$ per year. This analysis demonstrates that the modifications to the Standby Steam Generator Feedwater System will have no significant impact on the frequency of core damage, and therefore the probability of failure to prevent certain beyond licensing basis events, for which the SSGF System is intended, ultimately leading to a core melt have not been increased.

The 10 CFR 50, Appendix R criteria do not postulate design bases accidents coincident with fires. In addition, the location of the new diesel driver and its storage tank meets appropriate regulatory criteria and will not lead to an uncontrolled fire which could damage redundant safety related equipment or systems required to achieve and maintain either plant in a safe shutdown condition.

Consequently, the plant modifications and changes in Technical Specifications associated with the SSGF pumps will have no significant effect on the probability or consequences of beyond licensing basis events; and the probability or consequences of any accident or plant event previously evaluated for Turkey Point by the NRC has not been significantly increased.

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

The Cranking Diesel Generators serve to provide a backup power source for the Standby Steam Generator Feedwater System, which has been designed to provide emergency feedwater to the steam generators for beyond licensing basis events under conditions where normal and auxiliary feedwater have been lost coincident with a loss of offsite power. The SSGF System also ensures an orderly plant shutdown to meet the requirements of 10 CFR 50, Appendix R, by providing a source of feedwater under conditions where a fire has damaged the AFW System.

Since the proposed SSGF pump modifications and associated Technical Specification operability/surveillance requirements enhance the diversity of pump drivers and preserve the capacity, location, and reliability of the subject SSGF pumps, these modifications will serve to ensure that the possibility of a new or different kind of accident from any previously evaluated will not be created. In addition, these modifications preserve existing licensing commitments applicable to the Standby Steam Generator Feedwater System, which are associated with issues of AFW diversity, reliability, and backup feedwater and fire protection requirements.

The 10 CFR 50, Appendix R criteria do not postulate design bases accidents coincident with fires. In addition, the location of the new diesel driver and its storage tank meets appropriate regulatory criteria and will not lead to an uncontrolled fire which could damage redundant safety related equipment or systems required to achieve and maintain either plant in a safe shutdown condition.

Consequently, the plant modifications and changes in Technical Specifications for the power driver of the SSGF pumps will not create the possibility of a new or different kind of accident from any accident previously evaluated by the NRC, and the possibility of a new or different kind of accident from any accident previously evaluated has not been increased.

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

The Cranking Diesel Generators serve to provide a backup power source for the Standby Steam Generator Feedwater System, which has been designed to provide emergency feedwater to the steam generators for beyond licensing basis events under conditions where normal and auxiliary feedwater have been lost coincident with a loss of offsite power. The SSGF System also ensures an orderly plant shutdown to meet the requirements of 10 CFR 50, Appendix R, by providing a source of feedwater under conditions

where a fire has damaged the AFW System.

Several options were considered to eliminate operating reliance on the Cranking Diesel Generators for the Standby Steam Generator Feedwater System. FPL decided to remove one of the electric motor-driven SSGF pumps and replace it with a dedicated diesel-driven SSGF pump assembly with a capacity equal to the original pump in its original location. This will serve to preserve the capacity and location of the original installation, while enhancing the level of diversity in the power drivers for the pumps. Since a single SSGF pump can supply sufficient feedwater flow to both units, the availability of the diesel-driven SSGF pump alone will be sufficient to preclude a loss of secondary cooling for those beyond licensing basis events which involve a total loss of normal and AFW cooling coincident with a loss of offsite power.

Even though the installation of the new diesel-driven SSGF pump will mean a significant increase in the amount of combustible fluids (diesel fuel oil) present at the location of the SSGF pumps, the location of the new diesel driver and its storage tank are located sufficiently far from safety related equipment and will be designed to include a secondary containment for fuel oil spills. This configuration will ensure that an inadvertent diesel fuel oil spill will not result in an uncontrolled fire which could damage redundant safety related equipment or systems required to achieve and maintain either plant in a safe shutdown condition.

Since the proposed SSGF pump modifications and associated Technical Specification operability/surveillance requirements enhance the diversity of pump drivers while preserving the capacity, location, and reliability of the subject SSGF pumps, these modifications will serve to ensure that the margin of safety for the Standby Steam Generator Feedwater System is preserved. In addition, these modifications preserve existing licensing commitments applicable to the Standby Steam Generator Feedwater System, which are associated with issues of AFW diversity, reliability, and backup feedwater and fire protection requirements. Therefore, the Standby Steam Generator Feedwater System modifications and associated changes in Technical Specification 3/4.7.1.6.3 does not involve a reduction in the margin of safety.

Summary

Based on the above discussion, FPL has determined that the proposed amendment request does not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (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; and therefore the proposed changes do not involve a significant hazards consideration as defined in 10 CFR 50.92.

