FPL Energy
Seabrook Station

FPL Energy Seabrook Station
P.O. Box 300
Seabrook, NH 03874
(603) 773-7000

June 7, 2006

SBK-L-06127
Docket No. 50-443

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Seabrook Station
Emergency License Amendment Request 06-07
"Containment Enclosure Emergency Air
Cleanup System Allowed Outage Time One Time Change"

Pursuant to 10 CFR 50.90 and 10 CFR 50.91(a)(5), FPL Energy Seabrook, LLC (FPL Energy Seabrook) requests approval of a change to Seabrook Station Facility Operating License NPF-86. The change concerns the allowed outage time for one inoperable containment enclosure emergency air cleanup system. The proposed amendment would revise the Technical Specification (TS) 3.6.5.1 Action to revise the allowed outage time (AOT) of seven (7) days to fourteen (14) days on a one-time basis. A description of the proposed change is included in Attachment 1 to this letter.

The Station Operation Review Committee and the Company Nuclear Review Board have reviewed and approved the proposed amendment.

FPL Energy Seabrook requests approval of the proposed amendment by 1400 hours on June 9, 2006, to prevent an unnecessary shutdown of the plant. The reason for the one-time request for extension of the AOT is to complete repairs to the EAH-FN-31B fan motor. As described in Attachment 1, public safety is not compromised by extending the TS AOT. There is an inherent safety benefit of repairing the EAH-FN-31B fan motor without shutting the plant down.

Therefore, in accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (a)(5), FPL Energy Seabrook is requesting NRC approval of the proposed amendment on an emergency basis. Sufficient time is not available to support 30 days for prior public comment on a schedule to prevent an unnecessary plant shutdown upon the expiration of the current AOT. An explanation of the emergency and why it could not be avoided is included in Attachment 1. Once approved, this amendment will be implemented prior to the expiration of the current AOT.

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The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1), using the criteria in 10 CFR 50.92(c). FPL Energy Seabrook has determined that the proposed change does not involve a significant hazard consideration.

A copy of this letter and the enclosed LAR has been forwarded to the New Hampshire State Liaison Officer pursuant to 10 CFR 50.91(b). FPL Energy Seabrook has determined that the proposed change meets the criteria of 10 CFR 51.22(c)(9) for a categorical exclusion from the requirements for an Environmental Impact Statement.

Should you have any questions regarding this letter, please contact Mr. James M. Peschel, Regulatory Programs Manager, at (603) 773-7194.

Very truly yours,

FPL Energy Seabrook, LLC.

Gene St. Pierre
Site Vice President

Enclosures:
Notarized Affidavit

Attachments:
1. FPL Energy Seabrook's Evaluation of Proposed Change
2. Proposed Technical Specification Change (mark-up)
3. Proposed Technical Specification Change (retype)

cc: S. J. Collins, NRC Region I Administrator
E. Miller, NRC Project Manager, Project Directorate I-2
G.T. Dentel, NRC Senior Resident Inspector

Mr. Bruce G. Cheney, ENP, Director, Division of Emergency Services
N.H. Department of Safety
Division of Emergency Services, Communications, and Management
Bureau of Emergency Management
33 Hazen Drive
Concord, NH 03305

FPL Energy
Seabrook Station

AFFIDAVIT

SEABROOK STATION UNIT 1

Facility Operating License NPF-86
Docket No. 50-443

Emergency License Amendment Request 06-07
"Containment Enclosure Emergency Air Cleanup System Allowed Outage Time One Time Change"

The following information is enclosed in support of this License Amendment Request:

- **Attachment 1 - FPL Energy Seabrook's Evaluation of the Proposed Change**
- **Attachment 2 - Proposed Technical Specification Change (mark-up)**
- **Attachment 3 - Proposed Technical Specification Change (retype)**

I, Gene F. St. Pierre, Site Vice President of FPL Energy Seabrook, LLC hereby affirm that the information and statements contained within this License Amendment Request are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Sworn and Subscribed
before me this
7 day of June, 2006

Michael D. O'Keefe
Notary Public

Gene St. Pierre
Gene St. Pierre
Site Vice President

MICHAEL D. O'KEEFE
MY COMMISSION EXPIRES FEB. 5, 2008
NOTARY PUBLIC
NEW HAMPSHIRE

Attachment 1

FPL Energy Seabrook's Evaluation of Proposed Change

FPL ENERGY SEABROOK's EVALUATION

Subject: Emergency License Amendment Request 06-07, Containment Enclosure Emergency Air Cleanup System Allowed Outage Time One Time Change

1.0 INTRODUCTION

In accordance with 10 CFR 50.90, "Application for the amendment of license or construction permit," FPL Energy Seabrook, LLC (FPL Energy Seabrook) is proposing that the Seabrook Station Facility Operating License be amended to revise the Technical Specifications (TS) associated with the containment enclosure emergency air cleanup system. The proposed change to the TS 3.6.5.1, Action would increase the TS allowed outage time (AOT) for one inoperable containment enclosure emergency air cleanup system from seven (7) days to fourteen (14) days, on a one-time basis, to support emergency maintenance and repair to the motor of containment enclosure ventilation area return fan EAH-FN-31B. This extended AOT will be effective from 0602 hours, June 11, 2006 until 0602 hours, June 18, 2006. FPL Energy Seabrook requests approval of the proposed amendment by 1400 hours, June 9, 2006, to prevent an unnecessary shutdown. FPL Energy Seabrook is requesting NRC approval of the proposed change on an emergency basis, as sufficient time is not available to allow 30 days for prior public comment on a schedule to prevent an unnecessary plant shutdown at the expiration of the existing AOT. As described in Section 5.0 below, extending the TS 3.6.5.1 Action AOT and avoiding the risk incurred by a plant shutdown, will not compromise public safety.

Basis for Emergency

The need to request an emergency TS change arose from an unexpected condition discovered during normal operation on June 4, 2006. Fan EAH-FN-31B tripped at 2038 on June 3, 2006 and was discovered to be tripped on June 4, 2006 at 0602. After extensive electrical testing it was determined that the motor needed to be sent offsite for repair. The fan motor was removed and sent offsite for a motor rewind. Preliminary internal inspection of the failed fan motor revealed the cause of failure appears to be a breakdown in the insulation system due to a pre-existing flaw created by incidental contact during the assembly phase of the motor during construction. The estimated time for completion of the motor repair is 0200 on June 14, 2006. The time required to have the motor repaired, reinstall the motor in the fan, and test the fan and motor will exceed the current 7-day AOT. This issue has been entered into the site Corrective Action Program for resolution and determination of causes and corrective actions.

FPL Energy Seabrook could not have foreseen the need for this TS change prior to the failure of the EAH fan motor. The current Preventative Maintenance (PM) strategy was developed during a comprehensive PM optimization program that considered internal and external operating experience as well as vendor recommendations. With the current PM strategies, an impending winding failure would not have been detected. Routine fan preventative and predictive maintenance activities performed on EAH-FN-31B include vibration monitoring, breaker current injection testing, and motor starter inspections. None of these activities is designed to detect degraded motor winding conditions.

There are standard winding insulation tests for motor windings – (DC Coil Resistance Test, Insulation Resistance Test, Polarization Index Test, DC High Potential Test and Surge Comparison Test). Of these tests, the coil resistance test and the surge comparison test would have been potentially capable of detecting a degraded winding. The coil resistance test is capable of locating poor connections, open windings and shorted windings or turns. However, it is not capable of

predicting turn-to-turn failures. The surge comparison test may be able to predict turn to turn failures in some cases. None of these tests are currently incorporated in the Seabrook PM strategy for motors. The 480V motor PM philosophy is based on the relative age of our motor population (first half of 40-year life), our low failure rates among safety and non-safety-related motors, and on the limited ability of technologies to trend winding degradation.

The potential manufacturing defect may have been able to be detected if extended testing (e.g. surge comparison testing) were in place. However, for normal aging of the motor population, these extended technologies are not routinely used as failure prevention and prediction tools, and are therefore not employed at Seabrook Station.

2.0 PROPOSED CHANGE

FPL Energy Seabrook proposes to revise TS 3.6.5.1, "Containment Enclosure Emergency Air Cleanup System," as follows:

"The 7-day allowed outage time which was entered on June 4, 2006 at 0602 hours, may be extended one time by an additional 7 days to complete repair and testing on the containment enclosure ventilation area return fan EAH-FN-31B."

The proposed change will permit completing required corrective maintenance and repair on the EAH-FN-31B fan motor, perform post-maintenance and surveillance testing, and return the fan to an operable status. The extension of the existing 7-day AOT to 14 days will prevent exposure to the inherent risks associated with an unnecessary plant shutdown.

3.0 BACKGROUND

Description of Events

Completion of repairs, post-maintenance testing, and surveillance testing to establish operability will not be completed prior to expiration of the 7-day AOT. At the conclusion of the 7-day AOT, the TS 3.6.5.1 Action would require the unit to be in at least Hot Standby within the next 6 hours, and Cold Shutdown within the following 30 hours of the AOT expiration time of 0602 hours on June 11, 2006.

The purpose of this amendment request is to provide additional time in order to satisfactorily complete repairs, post-maintenance testing, and surveillance testing of fan EAH-FN-31B. FPL Energy Seabrook has determined that the risk of a one-time extension of the 7-day AOT by an additional 7 days does not warrant the inherent risks associated with an unnecessary plant shutdown. Accordingly, FPL Energy Seabrook is requesting that the 7-day AOT specified by the TS 3.6.5.1 Action be extended one time by an additional 7 days to allow completion of repairs and testing of the EAH-FN-31B fan motor. This requested extension would be limited to the current period of EAH-FN-31B fan inoperability.

Basis for Current Requirements

The function of the secondary containment (containment enclosure) is to collect any fission products that could leak from the primary containment structure into the containment enclosure and contiguous areas following a loss-of-coolant accident (LOCA). The containment enclosure provides a low leakage rate barrier between the containment and the environment to control leakage from the containment boundary. The containment enclosure emergency air cleanup system is designed to maintain a negative pressure within the containment enclosure following an accident, to remove and retain airborne particulates and radioactive iodine, and to exhaust filtered air to the unit plant vent. The containment enclosure emergency air cleanup system is designed to maintain a negative pressure of greater than or equal to 0.25 inches of water, following a design basis accident, in the annular region defined by the containment structure and the containment enclosure, as well as in the additional building volumes associated with the electrical penetration areas, mechanical piping penetration area and engineered safeguard equipment cubicles, so that any fission products leaking from these systems and from the primary containment will be retained in these areas and eventually processed through filters.

The containment enclosure emergency air cleanup system also provides cooling to the following areas and equipment during normal and emergency operation: containment enclosure ventilation equipment area, the charging pumps, safety injection pumps, residual heat removal pumps, containment spray pumps, and the mechanical penetration area. One train of containment enclosure emergency air cleanup system will maintain the areas served at or below 104°F based on a maximum outdoor temperature of 88°F during normal plant operating conditions. Under emergency plant operating conditions, one Train of the system will limit the temperatures in the equipment areas to the maximum temperatures based on the transient peak temperature in the primary component cooling water system. The 10-day weather forecast for the Seabrook area is predicting high temperatures from 57°F to 74°F during the time of the extended AOT.

During normal system operation, makeup air is provided to the containment enclosure ventilation area from the primary auxiliary building (PAB) supply fans. The containment enclosure cooling fans (EAH-FN-5A/B) draw air from containment enclosure ventilation area and filter, cool, and distribute the air through ductwork to the equipment areas. 100% redundant return air fans (EAH-FN-31A/B) draw air from the residual heat removal and containment spray pumps areas in the equipment vaults for return to the containment enclosure area ventilation area via ductwork.

The containment enclosure emergency air cleanup system trains are redundant, to ensure the maintenance of a negative pressure in the containment enclosure and related areas and to ensure cleanup of the exhaust air following an accident. Analysis has shown that one containment enclosure emergency exhaust filter fan is capable of drawing down the entire containment enclosure area to the design negative differential pressure in less than 8 minutes after the initiation of a design basis LOCA. This analysis takes into account the engineered safety feature actuation system signal delay time, delay time for the diesel generator to supply power in the event of a simultaneous loss of offsite power, and the time for the filter fan to come up to speed. The system is designed to limit offsite post-accident doses to values below those specified in 10CFR100.

A single component failure will not result in loss of function of this ESF system. The system components required for an operable containment enclosure emergency air cleanup system include those dampers, fans, filters, etc., and necessary ductwork and instrumentation that evacuate or isolate areas, route air, and filter the exhaust prior to discharge to the environment, which include:

- Containment enclosure cooling fans (EAH-FN-5A and 5B)
- Containment enclosure ventilation area return fans (EAH-FN-31A and 31B)
- Containment enclosure emergency exhaust fans (EAH-FN-4A and 4B)
- Charging pump room return air fans (EAH-FN-180A and 180B)
- Containment enclosure emergency clean up filters (EAH-F-9 and F-69)
- PAB / CEVA isolation dampers (PAH-DP-35A, 36A, 35B, and 36B)

The containment enclosure ventilation area return fans (EAH-FN-31A and 31B) are necessary to support the system's ability to establish a negative pressure within the containment enclosure and to provide cooling to the equipment served. During normal and emergency operations, one containment enclosure cooling fan (EAH-FN-5A or 5B) and one containment enclosure ventilation area return fan (EAH-FN-31A or 31B) operates to provide cooling to both trains of equipment and areas served.

Reason for Requesting Emergency Amendment

10 CFR 50.91(a)(5) states that where the Nuclear Regulatory Commission (NRC) finds that an emergency situation exists, in that failure to act in a timely manner would result in derating or shutdown of a nuclear power plant, or in prevention or either resumption of operation or of increase in power output up to the plant's licensed power level, it may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or public comment. The regulation also states that the NRC will decline to dispense with notice and comment on the determination of no significant hazards if it determines that the licensee has abused the emergency provision by failing to make timely application for the amendment and thus itself creating the emergency. The regulation requires that a licensee requesting an emergency amendment explain why the emergency situation occurred and why the licensee could not avoid the situation. As explained below, an emergency amendment is needed to preclude an unnecessary plant shutdown. FPL Energy Seabrook could not have reasonably avoided the situation nor could it have made any more timely application for an amendment.

Reason Emergency Situation Has Occurred

The emergency situation resulted from the unforeseen failure of the containment enclosure ventilation area return fan EAH-FN-31B fan motor. The time required to complete repairs to the motor, as well as perform post-maintenance and surveillance testing that can not be completed within the TS 7-day AOT, is the cause for the current emergency situation for which a license amendment is being requested.

FPL Energy Seabrook has determined that the risk of extending the 7-day AOT by an additional 7 days does not warrant the inherent risks associated with an unnecessary plant shutdown. Neither a routine nor an exigent amendment could be processed within the available time remaining under the current AOT. Therefore, an emergency amendment is needed to preclude an unnecessary shutdown.

Reason the Situation Could Not Have Been Avoided

On June 4, 2006, containment enclosure ventilation area return fan EAH-FN-31B was discovered tripped during normal operations. After extensive electrical testing it was determined that the motor needed to be sent offsite for repair. The fan motor was removed and sent offsite for a motor rewind. There is no replacement motor on site for this fan. On June 4, 2006 at 0602 hours, Containment Enclosure Ventilation Area return fan EAH-FN-31B was declared inoperable due to failure of the fan motor, entering the 7-day Action of TS 3.6.5.1.

FPL Energy Seabrook could not have reasonably foreseen the failure of the fan motor. With the current PM strategies, the winding failure would not have been detected. Routine fan preventive and predictive maintenance activities performed on EAH-FN-31B include vibration monitoring, breaker current injection testing, and motor starter inspections. None of these activities is designed to detect degraded motor winding conditions.

FPL Energy Seabrook does not have a spare motor for fan EAH-FN-31B. FPL Energy Seabrook is currently implementing a critical spare parts project. Prioritization and scheduling for identification and procurement of critical spare parts is based on an assessment of each system's impact on safe and reliable operation of the Seabrook plant. The EAH System critical spare parts evaluation is currently scheduled to be completed in 2007.

The time required to have the motor repaired, reinstall the motor in the fan, and test the fan and motor is projected to exceed the current 7-day AOT. As such, FPL Energy Seabrook is requesting a one-time extension of this 7-day AOT by an additional 7 days to assure adequate time is available for completion of all activities necessary to restore containment enclosure ventilation area return fan EAH-FN-31B to operable status. This requested extension would be limited to the current period of EAH-FN-31B inoperability.

FPL Energy Seabrook therefore considers that the situation could not have been avoided and there is justification for requesting the proposed license amendment on an emergency basis.

4.0 REGULATORY REQUIREMENTS AND GUIDANCE

10 CFR 50.36, "Technical specifications," provides the regulatory requirements for the content required in a licensee's TS. Criterion 3 of 10 CFR 50.36(c)(2)(ii) requires a limiting condition for operation to be established for a structure, system or component that is part of a primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The containment enclosure emergency air cleanup system satisfy these criteria.

FPL Energy Seabrook has determined that the proposed change does not require any exemption or relief from regulatory requirements, other than the TSs, and does not affect conformance to any General Design Criteria differently than described in the Updated Final Safety Analysis Report.

5.0 TECHNICAL ANALYSIS

The integrity of the reactor coolant system, fuel and other components of the primary system of a nuclear plant can be adversely affected by the number of thermal or power transients that they are subjected to during their lifetime. As each additional thermal transient can affect this integrity, it is prudent to avoid such transients provided the health and safety of the public is preserved. Additionally, the cycling of the unit through a thermal transient cycles the secondary plant systems, as well as increases challenges to the operators. Placing the unit in hot shutdown requires additional routine surveys and inspections within the reactor containment building that increase personnel exposure.

The proposed amendment to allow a one time extension of the AOT for the containment enclosure emergency air cleanup system, is based on the following considerations.

Risk from Proposed Allowed Outage Time Extension

Introduction

This evaluation addresses the risk of a 14-day AOT for a single containment enclosure emergency air cleanup system train non-functional. The current AOT is 7 days. This evaluation documents the use of the PRA risk model to solve for the incremental core damage probability (ICCDP) per NRC Regulatory Guide 1.177.

PRA model and Scope

Seabrook uses RISKMAN software to quantify the risk metrics associated with this evaluation. The Seabrook Station PRA model is a linked event tree model (also called "large event tree"). This type of analysis uses linked event trees to develop core damage sequences and fault trees to develop equations modeling the interaction of components within the systems analysis. Selected initiating events are also modeled via fault trees (in place of point estimates). In general, plant equipment is modeled at the component level, with multiple basic events representing various failure modes.

Seabrook Station maintains a living PRA with an internal process and procedures that establish the programmatic requirements for PRA update and review. The current PRA model of record (SB2004X) is based on plant data and modifications through December 2004.

This model is an integrated, all modes, full scope, Level 2 analysis of severe accident risk from the reactor core for all plant configurations, from Mode 1 to Mode 6: full power operation, low

power operations, hot shutdowns, and cold shutdowns, including planned and unplanned outages. The model has the capability to estimate Level 3 doses.

PRA Quality

Historically the Seabrook PRA received significant review from Lawrence Livermore National Laboratory and Brookhaven National Laboratory in the 1980's in conjunction with a submittal for a reduced emergency planning zone.

A Peer Review of the Seabrook Station PRA was completed in December 1999 (PRA model SB1999) using the Westinghouse Owner's Group (WOG) methodology. The peer review team was comprised of six full-time members and 2 part-time special focus members. The peer review team's PRA experience ranged from 12 to 20 years, with nuclear industry experience ranging from 13 to 30 years.

The Seabrook Peer Review was conducted in October 1999, as part of the WOG industry process. That review identified a total of 74 critical comments, including 34 significant ("A" or "B" level) comments, as well as 11 "superior" comments. All significant comments were addressed by either making model changes (see below), performing sensitivity analyses (e.g., Human Reliability Assessment (HRA) comments), or documenting that the comment is not significant for most applications (e.g., Level 2 comments).

The most significant comments were in the area of HRA. In response, we first performed a simplified SLIM (success likelihood index method) analysis to look for outliers – actions that may be quantified optimistically relative to other actions. The SLIM analysis did not identify any "optimistic" results. An operator action dependency analysis was performed. We also undertook a multi-year effort to investigate methods and provide HRA training to the group. We have settled on the EPRI HRA tool as the best implementation of an available, reasonable, and reproducible methodology. We have updated several action analyses using the HRA tool and plan to update a number of others over the next two years.

Of the 74 comments, 27 peer review comments were fully resolved by model updates in the SB1999 and an additional 17 peer review comments in SB2002X. A total of 30 peer review comments remain to be closed out, including 12 "B" level comments. Of the significant (i.e. B level) comments, seven are related to Level 2 Analysis. The remaining five are in the areas of: HRA, Success Criteria, Uncertainty Analysis, and Methodology and are expected to be completed within the next three years. Three of these previous five comments deal with documentation and programmatic issues. None of the five would be expected to impact results for an AOT change (i.e. they would equally impact the base case and the AOT change case).

Modeling for this Evaluation

The average maintenance model of record was used in this evaluation (SB2004X) to calculate the baseline Core Damage Frequency (CDF) and Large Early Release Frequency (LERF) values. The containment enclosure emergency air cleanup system is modeled with its own fault tree under the top event EAH. The component and associated basic events for EAH fan 31B are modeled explicitly in the fault tree. No alterations to the system fault tree were necessary to perform this evaluation. System fault tree models include contributions from random failure, test, and maintenance unavailability.

The average maintenance model was used for the base case value. This model was restricted to internal events average maintenance at power value (Mode 1). Internal flooding and fire are not included in this calculated value. A calculation was done using a cloned version of the base model for the case with EAH-FN-31B out of service (i.e. failed).

Truncation

The RISKMAN model has two levels of quantification: system quantification and the event tree quantification. The system level quantification uses the Binary Decision Diagram method (BDD) to quantify split fraction values from the system fault trees. The BDD solution does not have a truncation limitation since it provides an exact solution. The event tree quantification process keeps track of the "unaccounted frequency," which is the maximum error. From event tree truncation testing, the unaccounted frequency given a truncation level of 1E-14 is 0.28%. Given the use of BDD and the empirical testing of the event tree quantification that shows a very small-unaccounted frequency, truncation is not an issue for this evaluation.

Success Criteria

The success criteria for EAH is that at least one Containment Enclosure Cooling System train must operate for 24 hours mission time; and at least one inboard or one outboard isolation damper must close.

Initiating Events

No initiating event frequencies are changed as a result of the failure of EAH system components. Failure of EAH does not create an initiating event. This analysis is restricted to internal events average maintenance at power value (Mode 1). Internal flooding and fire initiating events are not included.

Common Cause

Dependencies are modeled in a variety of ways. Dependencies within a system are modeled using a parametric MGL (Multiple Greek Letter) method to account for unspecified dependencies. Dependencies between and among systems are modeled via logic rules in the event trees.

The failure-to-start common cause dependency for EAH fan 31A and EAH fan 31B was removed for this evaluation since the alternate fan (EAH-FN-31A) has been started successfully. The common cause relationship for fail-to-run was included in this evaluation because common cause can not be ruled out for the remaining fan that is running.

Compensatory Measure

None of the compensatory actions have been credited in the analysis.

Configuration Risk Management

Seabrook station uses Safety Monitor online risk assessment software. The software solves the fault tree and event tree sequences from the full Seabrook PRA model. While in the extended EAH outage time period, overall plant risk will be managed by the existing Maintenance Rule (a)(4) program. The Seabrook PRA department reviews the entire workweek using the Safety Monitor software and ensures that overlapping risk activities do not impose a significant risk hazard to the station.

Results

Case	Description	CDF (Mode 1) Internal Events	LERF (Mode 1) Internal Events
1	Base Case (average maintenance)	1.53E-05	9.23E-08
2	EAH fan 31 B non-functional	4.94E-05	1.04E-07
	Delta CDF (Case 2 – Case1)	3.41E-05	1.17E-08
	AOT in Years (=14/365)	3.84E-02	3.84E-02
		ICCDP	**ICLERP**
	Incremental Conditional Probabilities	1.31E-06	4.49E-10

Compensatory Risk

Shutting down the plant to repair EAH-FN-31B has additional risks due to the transition modes. This would add additional risk, above the Incremental Conditional Core Damage Probability (ICCDP) of between 2E-07 and 3E-07 that would be avoided by staying at power.

Conclusion

The total ICCDP for repairing EAH-FN-31B at power is 1.31E-06. The total risk for shutting down to repair EAH-FN-31B is approximately 1.5E-06, i.e., incurring an additional risk of between 2E-07 and 3E-07 for shutting down and returning to power.

A risk level of 1E-06 is traditionally used as the threshold between insignificant and minor. The 14-day AOT produces results above the 5E-07 "increased review" threshold in R.G. 1.177. The incremental change in LERF values is insignificant.

Common Cause Failure Assessment

Preliminary internal inspection of the failed EAH fan motor revealed the cause of failure appears to be a breakdown in the insulation system due to a pre-existing flaw created by incidental contact during the assembly phase of the motor during construction. Over time the insulation would continue to breakdown eventually resulting in a turn-to-turn short. The turn-to-turn short would result in excessive currents and localized heating that would further breakdown the coil insulation until a phase-to-phase or phase-to-ground short developed in the slot. In the case of this motor the final failure resulted in a phase to phase and a phase to ground short.

Based on review of the design and operating history of the motor in conjunction with the preliminary inspection results, there is no immediate common failure concern for the redundant EAH fan motor or similar safety related motors. Although no provision for tracking run times exists, Station procedures alternate operation of the fans approximately every 31 days to equalize run times and confirm proper system operation. Consequently, both fan motors have comparable run times.

A comprehensive extent of condition review will be completed in conjunction with the failure cause analysis as required by the station corrective action program.

Operation and Maintenance Restrictions

FPL Energy Seabrook will implement the compensatory measures below while operating in the extended AOT for TS 3.6.5.1.

1. Continue to assess and manage the increase in risk that may result from planned maintenance activities and emergent issues in accordance with the Seabrook Station program and procedures that implement 10 CFR 65(a)(4).

2. Maintain critical train "A" components protected. Install signs, barrier tape, or similar markings to protect the following train "A" equipment:

    - Emergency diesel generator
    - Containment enclosure emergency air cleanup system
    - Emergency feedwater
    - Ocean supplied service water
    - Service water cooling tower
    - Primary component cooling water
    - ECCS equipment vaults (residual heat removal, safety injection, and containment building spray)
    - Centrifugal charging pumps
    - Control room makeup air and filtration system

3. No elective maintenance will be performed on the following train "A" systems:

   - Emergency diesel generator
   - Containment enclosure emergency air cleanup system
   - Emergency feedwater
   - Ocean supplied service water
   - Service water cooling tower
   - Primary component cooling water
   - Residual heat removal
   - Safety injection
   - Containment building spray
   - Centrifugal charging pumps
   - Control room makeup air and filtration system

Surveillance activities required by the Operating License will continue to be performed.

4. A non-routine surveillance has been created to review logger printouts on a more frequent basis (currently every 2-hours)

Conclusion

As discussed above, there is no significant increase in risk associated with extending the AOT for 7 days to accomplish the repair and subsequent testing of EAH-FN-31B. Additionally, there is an inherent safety benefit of repairing EAH-FN-31B without shutting the plant down. Shutting down the plant to repair EAH-FN-31B has additional risks due to the transition modes. This would add additional risk, on the order of 2E-7, that would be avoided by staying at power. Therefore, requiring this repair to be performed during shutdown would result in additional plant equipment and personnel challenges without any significant benefit to the safety of the plant or the health and safety of the public. In addition to the risk insights discussed above, redundant equipment exists to ensure that the containment enclosure emergency air cleanup function is performed. The redundant component EAH-FN-31A will be maintained in an operable condition in accordance with TSs. Work on EAH-FN-31B is prioritized such that work is performed around the clock in accordance with site administrative procedures. In addition, to ensure that the work proceeds in an orderly, yet expeditious manner, the Outage Control Center is activated to ensure that appropriate focus is placed on scheduling, prioritization, contingencies, and relief turnover. Senior Corporate and Site Management personnel will continue to closely monitor the work activities to assure prompt completion.

6.0 REGULATORY ANALYSIS

Existing TS Actions would require a plant shutdown if containment enclosure ventilation area return fan EAH-FN-31B is not returned to an operable status within the 7-day AOT. The PRA analysis shows that the ICCDP and the Incremental Conditional Large Early Release Probability (ICLERP) for extending the AOT from 7 to 14 days is 1.31E-06 and 4.49E-10 respectively. The

restriction of other safety-related or risk-significant components being considered as protected equipment during the extended EAH-FN-31B fan AOT will assure that redundant systems and equipment are available in the unlikely event of an accident that would require these components to function properly.

In conclusion, based on the considerations above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance is the amendment will not be inimical to the common defense and security or to the health and safety of the public.

7.0 DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Description of amendment request:

The proposed license amendment to Facility Operating License NPF-86 will revise the TSs to allow a one-time extension of the current AOT for the inoperable Containment Enclosure Emergency Air Cleanup System from 7 days to 14 days to support the repair on containment enclosure ventilation area return fan EAH-FN-31B.

Pursuant to 10 CFR 50.92, 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; (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 or safety. Each consideration is discussed below.

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change affects the AOT for the TS 3.6.5.1 Action. The proposed change allows a one-time extension of the current AOT for the inoperable containment enclosure ventilation area return fan EAH-FN-31B from seven (7) days to fourteen (14) days. The proposed change does not affect the design of the Containment Enclosure Emergency Air Cleanup System, the operational characteristics or function of the Containment Enclosure Emergency Air Cleanup System, the interfaces between the Containment Enclosure Emergency Air Cleanup System and other plant systems, or significantly affect the reliability of the Containment Enclosure Emergency Air Cleanup System. Limiting conditions for operation and their associated allowed outage times are not considered initiating conditions for any accident previously evaluated, nor is the Containment Enclosure Emergency Air Cleanup System considered an initiator for any accident previously evaluated. The containment enclosure ventilation area return fans (EAH-FN-31A and 31B) are necessary to support the system's ability to establish a negative

pressure within the containment enclosure and to provide cooling to the equipment served. During normal and emergency operations, one containment enclosure cooling fan (EAH-FN-5A or 5B) and one containment enclosure ventilation area return fan (EAH-FN-31A or 31B) operates to provide cooling to both trains of equipment and areas served. The consequences of accidents previously evaluated are not affected by the proposed change in AOT. To fully evaluate the effect of the proposed Containment Enclosure Emergency Air Cleanup System AOT extension, Probabilistic Risk Assessment (PRA) methods and a deterministic analysis were utilized. The results of the analysis show no significant increase in Core Damage Frequency or Large Early Release Frequency.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the probability of a new or different accident from any accident previously evaluated?

   Response: No.

   The proposed change does not involve a change in the design, configuration, or method of operation of the plant. The proposed change will not alter the manner in which equipment operation is initiated, nor will the functional demands on credited equipment be changed. The proposed change allows operation of the unit to continue while fan EAH-FN-31B is repaired and retested. The proposed extension does not affect the interaction of fan EAH-FN-31B with any system whose failure or malfunction can initiate an accident. As such, no new failure modes are being introduced.

   Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No.

   The proposed change does not alter the plant design, nor does it affect the assumptions contained in the safety analyses. Specifically, there are no changes being made to the Containment Enclosure Emergency Air Cleanup System, including instrument setpoints. The proposed change has been evaluated both deterministically, and using risk-informed methods. Based upon these evaluations, margins of safety ascribed to Containment Enclosure Emergency Air Cleanup System availability and to plant risk have been determined to not be significantly reduced. The evaluation has concluded the following with respect to the proposed change:

   Applicable regulatory requirements will continue to be met and sufficient safety margins will be maintained. Furthermore, increases in risk posed by potential combinations of equipment out of service during the proposed extended Emergency Air Handling Fan

EAH-FN-31B AOT will be managed under a configuration risk management program consistent with 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," paragraph (a)(4).

The availability of the other containment enclosure ventilation area return fan EAH-FN-31A and the use of on-line risk assessment tools, as well as planned compensatory measures, provide adequate compensation for the potential small incremental increase in plant risk associated with the extended containment enclosure ventilation area return fan EAH-FN-31B AOT.

Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Based on the above, FPL Energy Seabrook concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

8.0 ENVIRONMENTAL CONSIDERATION

The proposed license amendment changes requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The proposed amendment involves no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and no significant increase in individual or cumulative occupational radiation exposure. FPL Energy Seabrook concluded that the proposed amendment involves no significant hazards consideration and meets the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and that, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment need not be prepared in connection with issuance of the amendment.

Attachment 2

Proposed Technical Specification Change (mark-up)

CONTAINMENT SYSTEMS

3/4.6.5 CONTAINMENT ENCLOSURE BUILDING

CONTAINMENT ENCLOSURE EMERGENCY AIR CLEANUP SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.1 Two independent Containment Enclosure Emergency Air Cleanup Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one Containment Enclosure Emergency Air Cleanup System inoperable, restore the inoperable system to OPERABLE status within 7 days# or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.1 Each Containment Enclosure Emergency Air Cleanup System shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes;

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Verifying that the cleanup system satisfies the in-place penetration leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978*, and the system flow rate is 2100 cfm ± 10%;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, by showing a methyl iodide penetration of less than or

#The 7-day allowed outage time which was entered on June 4, 2006 at 0602 hours, may be extended by an additional 7 days to complete repair and testing on the Containment Enclosure Ventilation Area return fan EAH-FN-31B.

*ANSI N510-1980 shall be used in place of ANSI N510-1975 referenced in Regulatory Guide 1.52, Rev. 2, March 1978.

Attachment 3

Proposed Technical Specification Retype

3/4.6.5 CONTAINMENT ENCLOSURE BUILDING

CONTAINMENT ENCLOSURE EMERGENCY AIR CLEANUP SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.1 Two independent Containment Enclosure Emergency Air Cleanup Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one Containment Enclosure Emergency Air Cleanup System inoperable, restore the inoperable system to OPERABLE status within 7 days# or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.1 Each Containment Enclosure Emergency Air Cleanup System shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes;

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Verifying that the cleanup system satisfies the in-place penetration leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978*, and the system flow rate is 2100 cfm ± 10%;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, by showing a methyl iodide penetration of less than or

The 7-day allowed outage time which was entered on June 4, 2006 at 0602 hours, may be extended one time by an additional 7 days to complete repair and testing on the Containment Enclosure Ventilation Area return fan EAH-FN-31B.

*ANSI N510-1980 shall be used in place of ANSI N510-1975 referenced in Regulatory Guide 1.52, Rev. 2, March 1978.