

July 27, 2001

Mr. Michael Kansler
Sr. Vice President and Chief
Operating Officer
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - ISSUANCE OF
AMENDMENT RE: ONE TIME RESIDUAL HEAT REMOVAL SERVICE WATER
(RHRSW) ALLOWED OUTAGE TIME TO ALLOW IMPLEMENTATION OF A
MODIFICATION TO THE "A" RHRSW STRAINER (TAC NO. MB1920)

Dear Mr. Kansler:

The Commission has issued the enclosed Amendment No. 271 to Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant. The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated May 11, 2001.

The amendment extends, on a one-time basis, the Limiting Condition for Operation allowable out-of-service time for the RHRSW system from 7 days to 11 days. The applicability of this change is limited to the one-time-only installation of the modification to the "B" RHRSW strainer.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

/RA/

Guy S. Vissing, Sr. Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-333

Enclosures: 1. Amendment No. 271 to DPR-59
2. Safety Evaluation

cc w/encls: See next page

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ACCESSION NO. ML011440207

*See previous concurrence

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DATE	7/20/01	7/20/01	7/11/01	7/20/01	6/22/01

Official Record Copy

DATED:

AMENDMENT NO. 271 TO FACILITY OPERATING LICENSE NO. DPR-59-FITZPATRICK

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ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 271
License No. DPR-59

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Energy Nuclear Operations, Inc., (the licensee) dated May 11, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-59 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 271 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Richard P. Correia, Acting Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 27, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 271

ENTERGY NUCLEAR OPERATIONS, INC.

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

116

127

Insert Pages

116

127

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 271 TO FACILITY OPERATING LICENSE NO. DPR-59
ENTERGY NUCLEAR OPERATIONS, INC.
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
DOCKET NO. 50-333

1.0 INTRODUCTION

By application dated May 11, 2001, Entergy Nuclear Operations, Inc. (the licensee) requested a change to the Technical Specifications (TSs) for the James A. FitzPatrick Nuclear Power Plant. The proposed change extends, on a one-time basis, the allowed outage time (AOT) for the residual heat removal service water (RHRSW) system from 7 days to 11 days to allow for installation of a modification to the loop "B" RHRSW strainer. The applicability of the proposed change is limited to the one-time-only installation of this modification on the loop "B" RHRSW strainer. The proposed change is supported by a licensee risk assessment which indicates that the risk associated with extending the AOT and performing the modification while at power is acceptable. Plant risk will be managed during the proposed extended outage in accordance with FitzPatrick's approved Configuration Risk Management Program.

2.0 EVALUATION

2.1 Background

Since the mid-1980s, the U.S. Nuclear Regulatory Commission (NRC) has been reviewing and granting improvements to TSs that are based, at least in part, on probabilistic risk assessment (PRA) insights. In its final policy statement on TS improvements of July 22, 1993, the Commission stated:

"licensees, in preparing their Technical Specification related submittals, will utilize any plant-specific probabilistic safety assessment¹ (PSA) or risk survey and any available literature on risk insights and PSAs... Similarly, the NRC staff will also employ risk insights and PSAs in evaluating Technical Specifications related submittals. Further, as a part of the Commission's ongoing program of improving Technical Specifications, it will continue to consider methods to make better use of risk and reliability information for defining future generic Technical Specification requirements."

The NRC reiterated this point when it issued the revision to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36, "Technical Specifications," in July 1995 (60 FR 36953).

¹PSA and PRA are used interchangeably herein.

In August 1995, the NRC adopted a final policy statement on the use of PRA methods in nuclear regulatory activities that encouraged greater use of PRA to improve safety decision-making and regulatory efficiency (60 FR 42622). The PRA policy statement included the following points:

- The use of PRA technology should be increased in all regulatory matters to the extent supported by the state of the art in PRA methods and data and in a manner that complements the NRC's deterministic approach and supports the NRC's traditional defense-in-depth philosophy.
- PRA and associated analyses (e.g., sensitivity studies, uncertainty analyses, and importance measures) should be used in regulatory matters, where practical within the bounds of the state of the art, to reduce unnecessary conservatism associated with current regulatory requirements.
- PRA evaluations in support of regulatory decisions should be as realistic as practicable and appropriate supporting data should be publicly available for review.

Accordingly, the staff has relied on both deterministic and probabilistic considerations in evaluating the acceptability of the proposed change.

2.2 Proposed Change

The RHRSW system consists of two independent and redundant loops or subsystems. Each loop has two RHRSW pumps with a common header. The header discharges into a duplex strainer, which then discharges to the system loads. Each duplex strainer has a flow porting mechanism for directing RHRSW flow through either of the two strainer baskets to allow on-line cleaning of the other basket. The flow porting mechanism is configured with a compression packing/stuffing box to minimize leakage between a piston ram and the strainer body. The packing gland on the loop "B" RHRSW strainer is degrading due to corrosion. In order to correct this degrading condition, a permanent modification has been developed which will replace the degrading packing gland with a new design. The "B" loop or subsystem of RHRSW must be removed from service while the strainer modification is being installed.

The licensee has estimated that the strainer modification installation will require approximately 5 days to complete. This does not allow for unforeseen complications during installation which could extend the RHRSW system outage beyond the 7-day allowable out-of-service time in the current TSs and result in a forced plant shutdown. The proposed change to the FitzPatrick TSs allows for unforeseen complications in the modification installation and, should complications arise, would permit the plant to remain at power while the repair is being completed. The change extends the Limiting Condition for Operation (LCO) allowable out-of-service time for the RHRSW system from 7 days to 11 days to allow for installation of the strainer modification. The applicability of the proposed change is limited to the one-time-only installation of the strainer modification on loop "B" of RHRSW.

The licensee proposes the following change to TS 3.5.B.3 and associated Bases:

TS 3.5.B.3 currently reads:

“Should one of the containment cooling subsystems become inoperable or should one RHRSW pump in each subsystem become inoperable, continued reactor operation is permissible for a period not to exceed 7 days*.”

The footnote states::

“ * During the installation of modification 99-095 to the “A” RHRSW strainer, continued reactor operation is permissible for a period not to exceed 11 days.”

The TS 3.5.B.3 footnote will be revised to reflect the new modification number and correct loop of RHRSW and, thus, will state:

“*during the installation of modification 00-125 to the “B” RHRSW strainer, continued reactor operation is permissible for a period not to exceed 11 days.”

The associated Bases section currently states that:

“... Based on the fact that when one containment cooling subsystem becomes inoperable only one system remains, a seven day repair period was specified.*”

The Bases footnote states:

“ * During the installation of modification 99-095 to the “A” RHRSW strainer, the seven day repair period may be extended to eleven days. The Conditional Core Damage Probability with the plant in this configuration for eleven days has been determined to be below the threshold probability of 1E-6 for risk significance of temporary changes to the plant configuration in the EPRI PSA Applications Guide.”

The Bases footnote will be revised to reflect the new modification number and correct loop of the RHRSW, and thus will state:

“* During the installation of the modification 00-125 to the “B” RHRSW strainer, the seven day repair period may be extended to eleven days.....”

2.3 Evaluation

The NRC staff evaluated the licensee's proposed amendment to the TSs using a combination of deterministic and probabilistic considerations. The deterministic analysis evaluated the capabilities of the plant to mitigate design-basis events with one RHRSW loop inoperable. The probabilistic analysis evaluated the risk significance of the proposed changes using PRA methods.

2.3.1 Deterministic Evaluation of RHRSW AOT Extension

The RHRSW system is designed to provide cooling water to the residual heat removal (RHR) system heat exchangers required for normal reactor shutdown cooling and for safe reactor shutdown following a design-basis accident or transient. The RHRSW system is operated whenever the RHR heat exchangers are required to operate in the shutdown cooling mode or in the suppression pool cooling or spray mode of the RHR system. The RHRSW system circulates service water through the tube side of the RHR heat exchangers, and supports long-term cooling of the reactor or containment by exchanging heat with the reactor coolant or suppression pool water, and discharging this heat to the external heat sink. The RHRSW system consists of two 100 percent capacity, totally independent supply loops. Each of the independent loops is supplied from two RHRSW pumps. Each pair of pumps is powered from a separate emergency bus connected to the emergency diesel generators (EDGs). Only one of the two parallel loops is necessary for safe shutdown.

The licensee has estimated that the RHRSW strainer modification installation will require approximately 5 days to complete. The licensee is requesting that the AOT be extended from 7 days to 11 days to allow for unforeseen complications in the modification installation schedule. This would prevent the need for a forced plant shutdown or a request for NRC enforcement discretion (to permit the plant to remain at power while repairs are completed) should the modification require more than 7 days to complete.

TS 4.5.B.3 requires that when one containment cooling subsystem becomes inoperable, the redundant containment cooling subsystem be verified to be operable immediately and daily thereafter. As discussed later, the licensee determined that initiators of importance during this LCO are a loss of the alternating current safeguards bus 10500 or a loss of "A" direct current power systems. For post-accident events, failure to vent containment locally via EOP support procedure EP-6 (Post Accident Containment Venting and Gas control) predominates. As part of the Configuration Risk Management Program, the licensee will assess work activities during the LCO to ensure:

- planned activities that have a potential to result in a plant transient, Reactor Protection System (RPS) actuation, Primary Containment and Reactor Vessel Isolation Control System trip, Emergency Core Cooling System (ECCS) actuation or failure are compatible with the planned LCO.
- no planned degradation, through testing or maintenance, of any other safety function is scheduled or permitted.
- no planned degradation of the electric power distribution safety function is scheduled or permitted.
- full capability to perform procedure EP-6 actions locally at the Torus exhaust isolation valves.

A contingency plan exists for providing an alternate means of achieving RHRSW flow. In the event the "A" loop of RHRSW were rendered inoperable during the loop "B" RHRSW strainer modification, an alternate means of achieving flow on loop "A" of the RHRSW is available via a connection to the Fire Protection System header. The connection would provide limited

containment cooling via the RHR heat exchanger, or alternatively, the flow from the Fire Protection System could be directed to the reactor core or the suppression pool. The connection is achieved by connecting a temporary hose to permanently installed cross tie connections in the RHRSW system and the Fire Protection System. Instructions for installing the crosstie exist in current plant procedures, and training on use of the crosstie has been provided. The material required for crosstie installation is permanently prestaged in an equipment cabinet in the RHRSW pump room.

The NRC staff concludes that a one-time extension of the AOT from 7 days to 11 days to permit the loop "B" RHRSW strainer modification to be performed while remaining at power is reasonable, and that the controls and contingencies the licensee will have in place during the modification will ensure sufficient defense-in-depth and safety margin are maintained.

2.3.2 Probabilistic Evaluation of RHRSW AOT Extension

To gain a risk perspective, the staff used a three-tiered approach to evaluate the risk associated with the proposed TS change. The first tier evaluated the PRA model and the impact of the change on plant operational risk. This included a limited consideration of PRA quality issues to confirm that the specific PRA is adequate to support the requested TS change. The second tier addressed the need to preclude potentially high risk configurations, should additional equipment outages occur during the loop "B" RHRSW strainer modification. The third tier considered the licensee's configuration risk management program to ensure that the applicable plant configuration will be appropriately controlled from a risk perspective before entering into or during the proposed AOT. Each tier and the associated findings are discussed below.

Tier 1: PRA Evaluation of AOT Extension

(1) Evaluation of PRA Model and Application to the Proposed AOT Extension

The staff's review focused on the capability of the licensee's PRA model to analyze the risk associated with the proposed AOT changes for the RHRSW system. The staff relied on prior reviews of the FitzPatrick PRA, and on information provided by the licensee to assess the adequacy of the PRA models for the RHRSW AOT request. An in-depth review of the PRA was not performed since: (1) the requested TS change is limited to a one-time extension of the AOT, and (2) the relatively small risk impacts estimated by the licensee for performing the modification at power appear reasonable given the small core damage frequency (CDF) for FitzPatrick.

The PRA used to support the requested TS change is an updated version of the Individual Plant Examination (IPE). The staff performed a two-step review of the original IPE in 1994 [3]. The first step focused on completeness and quality of the submittal; the second step involved a more detailed review and audit of level 1 and 2 PRA models and documentation, a site visit, and walk-through of important areas. As part of the evaluation, the staff reviewed portions of the fault trees for selected systems, including the RHR/low-pressure coolant injection (LPCI) system, and found that the models properly account for relevant failure modes and dependencies. The staff also reviewed the licensee's decay heat removal evaluation, and found the analysis method and results consistent with the intent of the Unresolved Safety Issue (USI) A-45 Shutdown Decay Heat Removable Requirements, resolution, and acceptable for

resolving the generic issue. The staff performed a limited review of the updated version of the IPE in conjunction with a request to modify the AOT for Emergency Diesel Generators (EDGs) at FitzPatrick [4]. Although this evaluation did not involve an in-depth review and focused on EDGs rather than the RHRSW system, the staff did not identify any deficiencies related to the PRA update and concluded that the PRA was sufficient to support the AOT extension for EDGs.

The staff reviewed the licensee's request to extend the LCO allowable out-of-service time to support installation of the same modification for the loop "A" of RHRSW [1]. As part of this review, the staff queried the licensee regarding the quality of the FitzPatrick PRA used to support the requested change for the RHRSW AOT, including updates of the PRA since the last review cycle, description of the peer review process and findings, and description of PRA quality assurance methods. The licensee provided additional information by letter dated December 7, 1999 [2]. The licensee's PRA which forms the basis for their risk assessment is an updated version (Revision 1) of the original IPE. The update, dated April 1998, incorporates changes to reflect new initiating event and component failure data, revised TSs, and modifications to the plant design and procedures made subsequent to preparation of the initial IPE. The update was prepared in conformance with the licensee's procedures governing review and approval of licensee generated documents. Before completion of the update, the licensee participated in the Boiling-Water Reactor Owner's Group Probabilistic Safety Assessment (PSA) peer review certification process. The PSA certification process used a team of experienced PSA and systems analysts to provide both an objective review of the technical elements of the study and a subjective assessment regarding the acceptability of these elements for potential applications. The peer review comments were evaluated by the licensee and addressed in the final analysis and report, as summarized in Section 5.3 of the IPE update. The staff approved the request for the loop "A" of RHRSW via TS Amendment No. 259 [6].

Based on the prior reviews of the licensee's PRA and the additional information supplied by the licensee, the staff considers the PRA models adequate for this application.

(2) Evaluation of PRA Results and Insights

The licensee assessed the impact on Core Damage Frequency (CDF) associated with removing loop "B" RHRSW from service. The licensee subsequently revised their plans, based in part on insights from the risk assessment, and now proposes to extend the AOT to ensure that the plant can remain at power while the strainer modification is performed.

Although the licensee requested an allowable out-of-service time of only 11 days, a 14-day period was used in the risk evaluation for additional conservatism. The licensee estimated that removing loop "B" RHRSW from service while at power and performing no concurrent risk-significant maintenance results in an increase in CDF of 1.13×10^{-6} per year over the base case. For a 14-day outage time, the incremental conditional core damage probability (ICCDP) is 4.33×10^{-8} . The licensee also addressed risk in terms of the impact of the AOT on large early release frequency (LERF). The licensee estimated that the LERF would increase by approximately 2.31×10^{-6} per year over the base case. For a 14-day outage time, the incremental conditional large early release probability (ICLERP) is 8.85×10^{-8} .

The licensee states that the ICCDP of $4.33\text{E-}8$ falls below the threshold probability of $1\text{E-}6$ for risk significance of temporary changes to the plant configuration in the Electric Power Research Institute (EPRI) Probabilistic Safety Assessment Applications Guide and is therefore not considered to be risk significant. The staff agrees that the increased risk for the 11-day AOT versus the 7-day AOT is not significant. Regulatory Guide (RG) 1.177 [5] states that a proposed AOT change should have only a small quantitative impact on plant risk. Per Reference 5, an ICCDP of less than $5.0\text{E-}7$ and an ICLERP of less than $5.0\text{E-}8$ are considered small for a single (permanent) AOT change. The incremental risk increase estimated by the licensee for the proposed AOT extension meets the guidelines for ICCDP and is only marginally above the guidelines for ICLERP. The staff notes that the applicability of the proposed TS change and the incremental risk increase is limited to the one-time-only installation of the RHRSW strainer modification on loop "B" of RHRSW and contains additional conservatism, since the licensee's evaluation considered a 14-day outage time.

On the basis of the Tier 1 review above, the staff concludes that the PRA model used for the proposed AOT extension is reasonable, and that the risk impact of the change is very small and supports the AOT extension.

Tier 2: Avoidance of Risk-Significant Plant Configurations

Plant risk during the loop "B" RHRSW strainer modification will be managed in accordance with FitzPatrick's existing Configuration Risk Management Program (CRMP). The CRMP provides a proceduralized risk-informed assessment to manage the risk associated with equipment inoperability. The program applies to TS structures, systems, or components for which a risk-informed AOT has been granted, and includes the following:

- Provisions for the control and implementation of a Level 1 at-power internal events PRA-informed methodology. The assessment is to be capable of evaluating the applicable plant configuration.
- Provisions for performing an assessment prior to entering the plant configuration described by the LCO Action Statement for preplanned activities.
- Provisions for performing an assessment after entering the plant configuration described by the LCO Action Statement for unplanned entry into the LCO Action Statement.
- Provisions for assessing the need for additional actions after the discovery of additional equipment out-of-service conditions while in the plant configuration described by the LCO Action Statement.
- Provisions for considering other applicable risk-significant contributors such as Level 2 issues and external events, qualitatively or quantitatively.

The CRMP is documented as Administrative Procedure AP 10.02, Rev. 13, "13-Week Rolling Schedule," and is included as Section 6.21 of the Administrative Controls section of the FitzPatrick TSs. FitzPatrick's CRMP was previously evaluated by the staff as part of the technical review of an EDG AOT extension request [4]. The staff concluded that the licensee's CRMP is consistent with the guidance and recommendations of RG 1.177 and is acceptable.

Consistent with the previous TS change request, the licensee reviewed the dominant minimal cutsets for the case with RHRSW loop "B" out of service to identify any special vulnerability which Operations personnel need to be aware of during the RHRSW outage. In addition to recommending that no additional risk-significant on-line maintenance be performed during the strainer modification (consistent with the assumptions in the risk assessment), the licensee recommended that special attention be paid to not performing any activity that could challenge the availability of either the division I AC safeguards bus 10500 or battery control board 71BCB-2B, based on the contribution to CDF from failures of these buses. These recommendations have been provided to the licensee's work control center, and will be factored into the licensee's configuration management processes for the RHRSW outage as stated previously. In addition, Operations personnel will be briefed on performing procedure EP-6 actions locally at the Torus exhaust isolation valves, should the need arise.

The staff considers that the controls and processes provided by the CRMP and TSs provide reasonable assurance that risk-significant plant configurations will not be entered during the proposed AOT and that appropriate actions will be taken should unforeseen events put the plant in a risk-significant configuration. The staff also notes that the contingency procedure for cross tying the fire protection system to the RHRSW system would help mitigate the event should the RHRSW loop "B" become unavailable and shutdown cooling become necessary. The Tier 2 evaluation performed as part of the present evaluation did not identify the need for any additional constraints or compensatory actions to avoid or reduce the probability of a risk-significant configuration.

Tier 3: Risk-Informed Plant Configuration Management

Based on the previous review of the FitzPatrick CRMP [4], the staff finds that the licensee's CRMP mentioned above satisfies the requirements for Tier 3.

The staff has reviewed the proposed RHRSW AOT extension at FitzPatrick and concludes that the AOT extension will not result in a significant increase in plant risk. On the basis of the three-tiered approach, the staff finds the following:

- The licensee's proposal to perform the strainer modification while at power, and to extend the AOT from 7 days to 11 days to avoid a forced plant shutdown should the modification require more than 7 days, results in only a minimal quantitative impact on plant risk. The calculated incremental conditional core damage probability and large early release probability values are small, and are acceptable for levels of risk increase for a one-time-only TS change (Tier 1).
- The licensee has controls and contingencies in place to reduce the likelihood of risk-significant plant configurations during the proposed AOT. The review did not identify the need for any additional constraints or compensatory actions that, if implemented, would avoid or reduce the probability of a risk-significant configuration (Tier 2).
- The licensee has implemented a risk-informed Configuration Risk Management Program to assess the risk associated with the removal of equipment from service during the proposed AOT. The program provides the necessary assurances that appropriate assessments of plant risk configurations are sufficient to support the proposed AOT extension request for the RHRSW system (Tier 3).

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (66 FR 34282). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (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 of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 REFERENCES

1. PASNY letter JPN-99-030, J. Knubel (PASNY) to NRC (DCD), Subject: Proposed One-Time-Only Change to the Technical Specifications Regarding RHRSW Allowable Out-of-Service Time (JPTS-99-005), September 29, 1999.
2. PASNY letter JAFP-99-0319, M. Colomb (NYPA) to NRC (DCD), Subject: Additional Information Needed to Complete Review of FitzPatrick Proposed One-Time Only Change to Technical Specifications Regarding RHRSW Allowable Out-of-Service Time, December 7, 1999.
3. Letter from R. Capra (NRC) to W. Josiger (NYPA), Subject: Individual Plant Examination for the James A. FitzPatrick Nuclear Power Plant (TAC No. M74411), May 9, 1994.
4. Letter from G. Vissing (NRC) to J. Knubel (NYPA), Subject: James A. FitzPatrick Nuclear Power Plant - Issuance of Amendment Re: The Allowed Outage Time for an Emergency Diesel Generator System (TAC No. M94611), July 30, 1999.
5. Regulatory Guide 1.177, "An Approach for Plant-Specific Risk-Informed Decisionmaking: Technical Specifications", August 1998.

6. Letter from G. Vissing (NRC) to J. Knubel (NYPA, Subject: James A. FitzPatrick Nuclear Power Plant - Issuance of Amendment Re: One Time Residual Heat Removal Service Water Allowed Implementation of a Modification to the "A" Residual Heat Removal Service Water (RHRSW) Strainer (TAC No. MA6667), January 28, 2000.
7. Entergy Letter JAFP-01-0116, T. Sullivan (Entergy) to NRC (DCD) Subject: Proposed One-Time-Only Change to the Technical Specifications Regarding RHRSW Allowed Out-of-Service Time (JPTS-01-001), May 11, 2001.

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