FPL

July 18, 2014
L-2014-197
10 CFR 2.390
10 CFR 50.90

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Re: Turkey Point Nuclear Generating Station Units 3 and 4
Docket Nos. 50-250 and 50-251
Response to Request for Additional Information Regarding License Amendment Request No. 216 - Transition to 10 CFR 50.48(c) - NFPA 805 Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants (2001 Edition)

By Florida Power and Light Company (FPL) letter L-2012-092 dated June 28, 2012, in accordance with the provisions of 10 CFR 50.90, "Application of License or Construction Permit," FPL requested an amendment to the Renewed Facility Operating License (RFOL) for Turkey Point Nuclear Generating Station Units 3 and 4. The License Amendment Request (LAR) will enable FPL to adopt a new fire protection licensing basis which complies with the requirements in 10 CFR 50.48(a) and (c) and the guidance in Revision 1 of Regulatory Guide (RG) 1.205.

On July 14, 2014, the NRC Staff requested additional information regarding the LAR. Attachment 1 to this letter provides the response to the requests for additional information (RAIs) that involve clarifications of the Turkey Point Probabilistic Risk Assessment (PRA) methodology with the exception of RAI PRA 07.01c.01. As discussed with the NRC Staff, response to RAI PRA 07.01c.01 will be provided by July 31, 2014. The additional information does not impact the 10 CFR 50.92 evaluation of "No Significant Hazards Consideration" previously provided in FPL letter L-2012-092.

This letter revises the new Table S-3 Implementation Item proposed by FPL letter L-2014-071 dated April 4, 2014. This letter does not add any new commitments.

Enclosure 1, "PRA Model for Flowserve 3 Stage N-Seals with Abeyance Seal," Revision 0, dated December 20, 2013, contains proprietary information to Flowserve Corporation. Enclosure 1 is referenced in the Attachment to this letter in the response to PRA RAI 29.b.1. Enclosure 2 provides the supporting affidavit signed by Flowserve Corporation, the owner of the information. The affidavit sets forth the basis for which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in 10 CFR Section 2.390 paragraph (b)(4). Accordingly, it is requested that the information which is proprietary to Flowserve Corporation be withheld from public disclosure.

If you should have any questions regarding this application, please contact Robert Tomonto, Licensing Manager, at 305-246-7327.

A006
NRR

I declare under penalty of perjury that the foregoing is true and correct.
Executed on July 18, 2014.

Michael Kiley
Vice President
Turkey Point Nuclear Generating Station

Attachment and Enclosures

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point
USNRC Project Manager for Turkey Point
Ms. Cindy Becker, Florida Department of Health

L-2014-197 Attachment

Response to Request for Additional Information Regarding License Amendment Request No. 216

Florida Power and Light Company
Turkey Point Nuclear Generating Station Units 3 and 4
Transition to 10 CFR 50.48(c) – NFPA 805
Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition

PTN RAI PRA 01.j.01.01

The response to PRA 01.j.01 identified several fire-specific parameters for which Monte Carlo uncertainty has been performed to generate mean values that include state-of-knowledge-correlations (SOKCs). The response reported that the mean values are no more than one percent higher than the point estimates. A one percent difference of a total core damage frequency (CDF) of about 5×10^{-5}/year is a negligible value compared to the CDF guideline of 1×10^{-5}/year for transition. The entry for PRA RAI 01.j in the Table on page 94 of 101 under "Post Transition PRA Disposition" in the response dated April 4, [1]2014, states that the "Point value will continue to be used based on the point value being consistent with the mean value." A one percent difference of a total CDF of about 5×10^{-5}/year is about 5×10^{-7}/year, which is five times greater than the self-approval CDF guideline after transition. If mean values will not be generated post-transition, clarify in the "Post Transition PRA Disposition" how the results of the post-transition fire risk evaluations will be verified to be close enough to the mean that they can distinguish between lying above or below the self-approval mean value guidelines.

RESPONSE:

The Monte Carlo calculations are performed to assess the impact of the SOKC. Normally, the mean CDF obtained is very close to the point estimate. If they are sufficiently close, like the 1% difference for the total fire CDF, then using the point estimate is justified. There is no need to perform Monte Carlo calculations to assess the impact of the SOKC for any future delta risk calculations as 1) the difference for the base case is minimal, and 2) the difference for the delta risk calculation will be similar and will subtract out.

As part of any PRA model update, these same SOKC calculations are updated and the variance between the mean and the point value are assessed to ensure a small variation between the two values.

The PRA RAI 29 disposition has been revised in the associated entry for the PRA RAI 29 table provided below. The table below reflects the change made from that provided in the original PRA RAI 29 response on April 4, 2014.

Issue	Final Composite Analysis Disposition	Post Transition PRA Disposition
PRA RAI 01.j.01 regarding the state-of-knowledge correlation (SOKC) treatment in post-transition fire risk evaluations	Confirmation of uncertainty analysis mean value consistent with the point value used.	Given the SOKC calculations show minimal difference between the mean and point values, the point values will be used to judge whether the change meets the self-approval guidelines. SOKC calculations will be performed following each model update to verify minimal variance between the mean and point values.

PTN PRA RAI 01.k.01

In the April 4, 2014, RAI response to PRA RAI 29a, the entry for PRA RAI 01.k in the Table on page 92 of 101, under "Post Transition PRA Disposition," states that "[c]redit for joint HEPs [human error probabilities] below 10E-05[1] will be retained with adequate justification per the PRA Standard." NUREG-1921 indicates, and NUREG-1792 (Table 2-1) states that joint HEP values should not be below 10^{-5}. Electric Power Research Institute (EPRI) Table 4-3 provides a lower limiting value of 10^{-6} for sequences with a very low level of dependence. Alternatively, the NRC staff has accepted general use of a 10^{-5} floor value for fire specific joint HEPs and 10^{-6} floor value for joint HEPs from the internal events that are credited in the fire PRA without additional justification for individual HEPs.

i. Confirm that each HEP value used to support the LAR below 10^{-5} includes its own justification that demonstrates the inapplicability of the NUREG-1792 lower value guideline. Provide an estimate of the number of joint HEPs between 10^{-5} and 10^{-6} and at least two different examples of the justification.

ii. Confirm that each HEP value below 10^{-6} further includes its own justification that demonstrates that all the individual actions are independent. Provide an estimate of the number of HEPs less than 10^{-6} and at least two different examples of the justification.

iii. Clarify in the "Post Transition PRA Disposition" how joint HEPs will be retained.

1 – 10E-05 in the RAI text was clearly intended to be 1.0E-05.

RESPONSE:

The final fire PRA quantification (to be provided with final responses to the current group of RAIs) which will constitute the Post Transition PRA model, will be performed in the following manner with respect to joint HEP dependency floor values:

1. Quantify the fire CDF and LERF using a recovery rule file with a dependency floor of 1E-5.
2. Identify the Human Failure Event (HFE) combinations with a probability of 1E-5 due to imposition of the dependency floor that have a significant impact on the fire CDF and LERF results.
3. Individually analyze these HFE combinations to see if a lower combination event probability can be justified.
4. Document the justification for the lower probabilities for these HFE combinations, and use the adjusted probabilities in the fire CDF and LERF quantifications.

PTN PRA RAI 01.r.02.c.01

The April 4, 2014, response to RAI PRA 01.r.02.c states that "scenarios have been created for the back panels in which adjacent panels are assumed to be impacted from fire propagation." Briefly summarize how the method to consider propagation of fire beyond the ignition source cabinets in the back panels of the main control room aligns with the approach recommended in Appendix S of NUREG/CR-6850. If the approach differs, provide justification for its use.

RESPONSE:

The Turkey Point Main Control Room includes two types of panels in the "back panel area". The first type is the main control board vertical boards (3C03, 3C04, 3C05, 3C06, 4C03, 4C04, 4C05, 4C06), located behind the main control board. These panels are open back panels which form an "L" shape with two panels on each side of the "L" with the closed side of the panel and the opening of the "L" facing the unit's main control board console and the opposite unit. The second type of panel in the "back panel area" is a stand-alone panel configuration which faces the open side of the open vertical board. These panels are separated from each other by double wall and air gaps. Figure 1 is a markup of Turkey Point drawing 5610-E-128 which highlights the following:

- Main control board (orange),
- Main control board open back panels (pink) and
- Stand-alone panels (blue/green, no significance in the two colors used).

The analysis of the open back panels assumes a fire in each panel will spread to one adjacent panel. Scenarios are evaluated for the following panel combinations:

3C04/3C03

3C03/3C05

3C05/3C06

4C03/4C04

4C04/4C05

4C05/4C06

The analysis of the stand-alone back panels is based on no fire spread between these back panels where double wall and air gap configuration exists (most of these panels have double wall air gap between them; in cases where they do not, the fire is assumed to impact both adjacent panels). Transient fires are postulated between the open back panel and the stand-alone panels which face the open back panels. Each transient fire scenario is assumed to impact the adjacent open back panel section and two adjacent stand-alone panels. Such scenarios are postulated for each combination of two stand-alone panels and the open back panel which faces them. For transient fires at the centerline between the adjacent open back panels both of these panels are assumed to be impacted.

This methodology is consistent with that specified in NUREG/CR-6850, Appendix S. A summary of the guidance in Appendix S and how the guidance is addressed in the evaluation of the back panel area is provided below:

1. Fire Propagation to Adjacent Cabinet:
    a. "Assume no fire spread if...Cabinets are separated by a double wall with an air gap..."(p. S-1, item 1 at the bottom of the page)
    b. This assumption is applied for the stand-alone panels (as described above).
2. Fire Damage to Adjacent Cabinet:
    a. "Assume loss of function in an adjacent cabinet if there is not a double wall with an air gap." (p. S-3, 1st bullet)
    b. This assumption is applied for the open back panels in the back panel area.

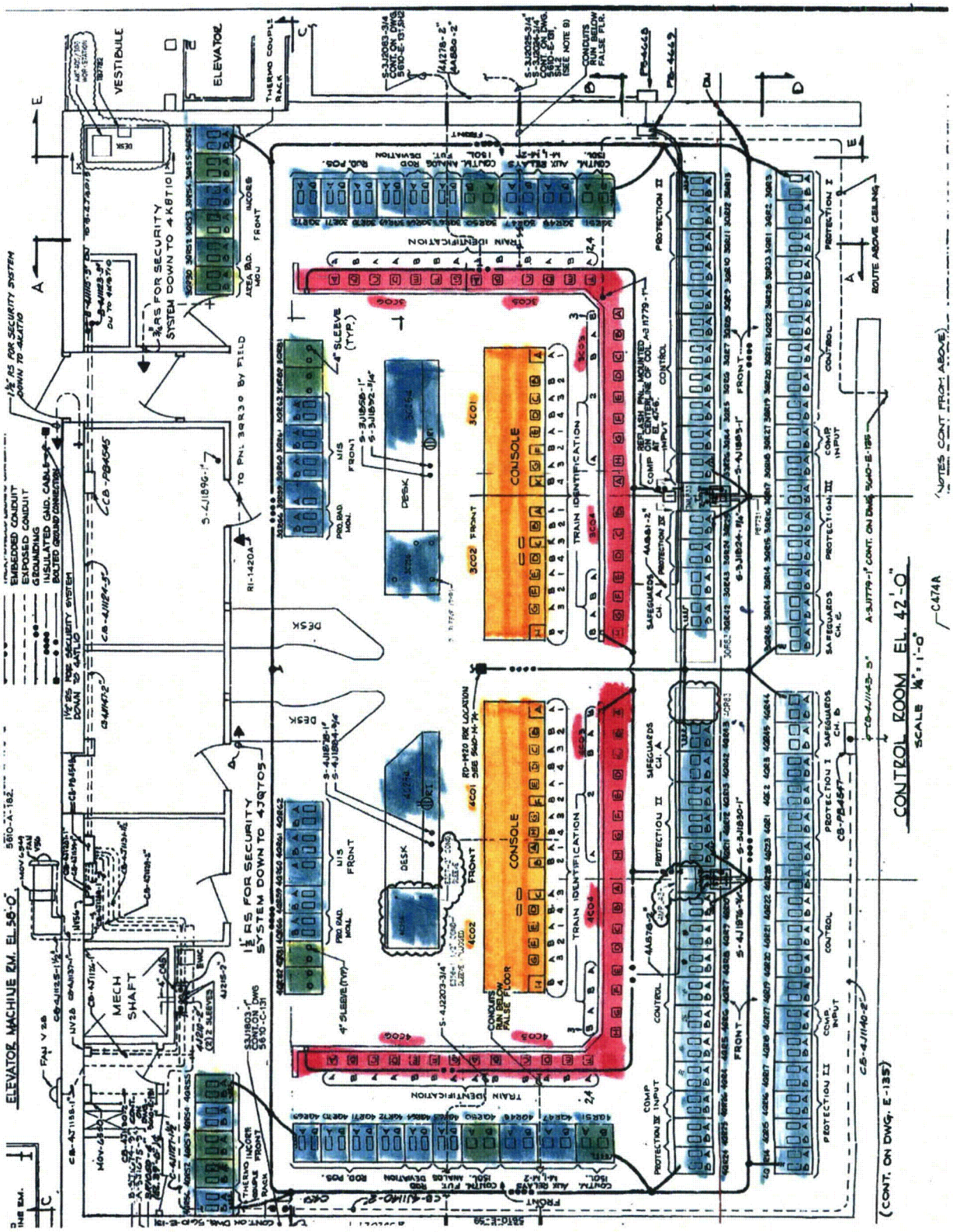
3. Fire Damage to Second Adjacent Cabinet:
   a. "Assume no damage in the second adjacent cabinet occurs until after the fire propagates to the adjacent cabinet." (p. S-3, 2nd bullet)
   b. Not applicable to the stand-alone panels since there is no fire propagation between panels with double walls and an air gap. Due to the large size and open configuration of the vertical boards (open back panels) and their location within the continuously manned control room, fire spread to a second adjacent panel is not expected or postulated. A fire impacting two adjacent vertical boards would need to travel a horizontal distance of at least 8 feet in two opposite directions (each of the vertical board open back panels is sixteen feet wide) and would need to traverse the 90 degree corner between two adjacent panels. With the open panel configuration this type of fire spread is not expected prior to extinguishment activities which would limit further spread of the fire (not necessarily completely extinguishing the fire). Horizontal fire spread via the non-qualified cables over a distance of 8 feet would require approximately 45 minutes (based on the horizontal spread rate specified in NUREG/CR-6850, Appendix R, Section R.4.1.2 for non-qualified (PVC) cables).

4. Damage to Sensitive Electronics:
   a. "Assume damage to sensitive electronics occurs at 10 minutes if there is a double wall with an air gap.

      Assume damage to sensitive electronics can be prevented before 10 minutes if the fire is extinguished and the cabinet is cooled, e.g., by CO_2 extinguishers." (p. S-3, 4th bullet and paragraph following the bullet).
   b. Given the location in the continuously manned control room, action to suppress the fire is expected to be initiated within 10 minutes and, even if the fire is not extinguished, it is expected that the fire would be controlled and its impact on sensitive electronics in an adjacent panel separated by double wall and air gap would be precluded. The spread of a fire in the open back panels that could spread to an adjacent panel will not impact sensitive electronics beyond the adjacent panel given the open configuration of the panels which will more readily dissipate the heat with respect to impact on a third panel (see discussion in item 3 above regarding time required for fire spread to a third panel). Therefore, the continuously manned control room will ensure that fire extinguishment will be initiated and the fire will be cooled, if not controlled, in a short time after initiation thus precluding damage to sensitive electronics.

Based on the discussion above, the analysis of control room panels in the main control room is consistent with the guidance of NUREG/CR-6850, Appendix S.

Figure 1
Markup of Turkey Point Drawing 5610-E-128



PTN PRA RAI 01.t.01.01

In the April 4, 2014 response to PRA RAI 29, the entry for RAI 01.t.01 in the Table on page 95 of 101 under "Final Composite Analysis Disposition" states that the Fire PRA "[e]liminated panel factors and incorporated use of NUREG/CR-6850, Appendix H." However, this disposition does not fully characterize the modeling changes addressed by the response to PRA RAI 01.t.01 (e.g., those associated with the damage accrual function and its treatment of the preheating of targets, treatment of dependencies between manual non-suppression probabilities, the reliability and unavailability of credited automatic detection and suppression systems, etc.). Clarify in the "Final Composite Analysis Disposition" that the fire PRA used to support the final composite analysis and post-transition will be updated to incorporate the analysis and modeling changes described in the response to PRA RAI 01.t.01.

RESPONSE:

The PRA RAI 29 disposition has been revised in the associated entry for the PRA RAI 29 table provided below. The table below reflects the change made from that provided in the original PRA RAI 29 response on April 4, 2014. The analysis incorporating the PRA RAI 01.t.01 will be provided in conjunction with the final RAI responses associated with this set of RAIs.

Issue	Final Composite Analysis Disposition	Post Transition PRA Disposition
PRA RAI 01.t-01 regarding replacement of panel factors with a new fire scenario development methodology instead of acceptable methods	Eliminated panel factors and incorporated use of NUREG/CR-6850, Appendix H.	The post transition fire PRA model will be the final composite analysis model which has been updated to incorporate the analysis and modeling changes described in the response to PRA RAI 01.t.01.

PTN PRA RAI 11.01.c.01

The April 4, 2014, response to RAI PRA 11.01.c did not provide the requested frequencies for the fire-induced main control room (MCR) abandonment scenarios. The results of the delta-risk evaluation for MCR abandonment documented in the license amendment request and experience from other NFPA-805 reviews indicate that the assumption about the probability of failing to successfully shutdown after MCR abandonment is a key assumption that can directly impact the regulatory decision. To support resolution of this key assumption, provide the requested MCR abandonment frequency for the compliant case, and for each of the three variant case bins developed from the final composite analysis.

RESPONSE:

The control room abandonment analysis is not yet finalized. The control room abandonment frequency will be provided in conjunction with the final RAI responses associated with this set of RAIs. The format of that input will be:

Calculated CCDP Range	CCDP Bin (CCDP Value Used in Establishing Total Variant Risk)	Total Abandonment Frequency of Associated Scenarios (per year) – applicable to the variant case as well as the corresponding compliant case
< 1E-03	0.1	X
< 0.1, ≥ 1E-03	0.2	Y
≥ 0.1	1.0	Z

PTN PRA RAI 13.01.c.01

The April 4, 2014, response to PRA RAI 13.01.c states that the methods used for evaluating ΔCDF and ΔLERF provide a conservative bounding analysis of the delta risk." An overestimate of the compliant plant risk, unless offset with a similar overestimate in the variant plant risk, results in a non-conservative analysis of the delta risk. The method applied to the cable spreading room described in the response to RAI 13.01.a and summarized below applies different assumptions to the variant and the compliant plant risk estimates with an indeterminate but most likely non-conservative impact on the change in risk estimate.

The March 18, 2013, response to PRA RAI 13 states that "[t]here are no outside control room fires which result in the loss of sufficient control room control capabilities to warrant control room abandonment. For a control room fire, control room abandonment results from habitability (temperature and visual impact of the fire)." The response to PRA RAI 13 discusses cable spreading room fires and states that following fires in this area, the plant will be shut down using the MCR and assisted by primary control station (PCS) actions as needed. Nevertheless, PRA RAI 13.01 states that cable-spreading room fire "scenarios with variant-case CCDP [conditional core damage probability] >0.056 (...) used 0.056 as the compliant case CCDP." The 0.056 value was developed to characterize the failure to shut down using only a single, least reliable train and after MCR abandonment. This approach sets the variance from deterministic requirements (VFDR) delta risk to zero for all scenarios having a variant-case CCDP less than 0.056. Hence, this approach, and any similar approach that essentially sets to zero the delta risk for scenarios impacting VFDRs (e.g., assuming such impact only for hot gas layer (HGL) scenarios), is non-conservative for the delta risk. There appears to be no reason to use worst case MCR abandonment CCDP for every fire in the cable spreading room that doesn't always fail all equipment but the least reliable train, and that doesn't require the operator to abandon the MCR. In general, compliant case CCDPs for the cable room fires should be smaller than the worst-case MCR abandonment CCDP. Apparently the variant case CCDP has been estimated (to know whether it is greater than 0.056), and the accepted method of removing variations from deterministic requirement failures from the variant case models to represent the compliant plant could be applied. An alternative is to not credit MCR abandonment due to loss of control and resolve VFDRs in the compliant case (e.g., set associated recovery actions in the

variant case to successful). Provide a change in risk estimate that is not indeterminately non conservative.

RESPONSE:

Further review of the cable spreading room compliant case configuration is being pursued. The compliant case CCDP will be re-calculated based on credit for equipment available at the alternate shutdown panel (ASP) with equipment failures only applied to these components (to conservatively assume a human error probability, HEP, of zero). Components required to support the operation of the components at the ASP, which are not currently available at the ASP, will also be credited based on equipment failures only and an assumed HEP of zero. This approach provides a compliant case risk for the control room abandonment assuming all required actions can be performed at the primary control station (i.e., the ASP), consistent with guidance of RG 1.205, Rev. 1.

Since the control room abandonment procedures credit offsite power, if available, restoration of offsite power at the ASP will also be assumed based on equipment failures only and an HEP of zero. Although the ASP design is not intended to ensure the availability of offsite power, this approach is included to provide a more realistic estimate of the compliant case CCDP and reduce potential non-conservative delta risk estimates.

Variant case fire scenarios where the CCDP is less than this compliant case CCDP are considered to be sufficiently low to not require control room abandonment, and will therefore not contribute to the delta risk. The variant case for these scenarios will be included in the total risk based on shutdown from the control room.

The final risk results incorporating the above methodology will be provided in conjunction with the responses to the remaining RAIs.

PTN RAI PRA 18.01.01

The April 4, 2014, response to PRA RAI 18.01 states that a review of transient controls during the period between November 2009 and April 2012 revealed violations "primarily related to outage activities," which implies that at least some violations were identified during power operations or low-power operations, such as plant start-up. In accordance with the memorandum dated June 21, 2012 (ADAMS Accession No. ML12171A583), from Joseph Giitter to Biff Bradley, titled, "Recent Fire PRA Methods Review Panel Decisions and EPRI 1022993, 'Evaluation of Peak Heat Release Rates in Electrical Cabinets Fires,'" characterize these violations, considering whether (1) they impact the transient fire HRR determination and (2) whether they reflect isolated incidents or a more general pattern of violations.

RESPONSE:

Previously, as discussed in the response to PTN RAI PRA 18.01, a review of transient controls during the period for November 2009 to April 2012 was performed. The review concluded that the violations of transient controls during this time period were found to be primarily related to outage activities, many of which were related to significant scope Extended Power Uprate (EPU) outages during this time period. Also, a review of documentation to determine if any transient fires had been experienced was performed with no fires identified.

As part of this response, a second review of the transient controls during the time period of November 2009 to April 2012 was performed. This review was concentrated on the non-outage time frame. The quantity of issues related to transient controls decreases significantly when the issues related to outage activities are disregarded. From the quantity of issues related to transient controls during non-outage time frame, only two issues were identified related to the fire zones/areas crediting the reduced transient heat release rate. These fire zones/areas are:

- Fire Zone 058 / Fire Area F – Unit 3 and Unit 4 Auxiliary Building 18' Elevation Hallway
- Fire Zone 079A / Fire Area CC – Unit 3 and Unit 4 Auxiliary Building North-South Breezeway
- Fire Zone 098 / Fire Area HH – Unit 3 and Unit 4 Cable Spreading Room

AR 1703279 identified transient combustible materials in the Auxiliary Building Breezeway (Fire Zone 079A) on 11/04/2011. Per the screening notes, the transient combustible material was 100 feet of fiber optic cable whose fire rating allows it to be installed per modification EC 247024. The total weight of the material was around 30 lbs.

AR 1723579 identified transient combustible materials with no permit in the Auxiliary Building Hallway (Fire Zone 058) on 1/12/2012. The transient combustible materials were tools, fall protection harnesses, batteries, flashlight, etc. The AR originator gathered all the equipment and returned them to the hot tool room.

Two issues were identified related to the fire zones/areas crediting the reduced transient heat release rate. The first one, AR 1703279 at Fire Zone 079A, is related to materials approved to the permanently installed in the zone. The other issue, AR 1723579 at Fire Zone 058, is related to combustible material, but it was low risk material (e.g., no flammable liquids). In this case, as soon as the material was identified by the AR originator, it was removed from the zone and returned to the hot tool room, which is a good housekeeping practice.

Based on the information presented above, only two issues related to transient controls in fire zones/areas crediting the reduced transient heat release rate had been identified in a 30 month time period. This is equivalent to less than one issue per year. Therefore, it is concluded that these issues are isolated incidents that do not demonstrate a general pattern of transient control violation in fire zones/areas crediting the reduced transient heat release rate. The increased controls proposed for these areas will serve to further limit such violations in the future.

PRA RAI 29.b.01

The April 4, 2014, response to RAI PRA 29.b indicates that a FlowServe reactor coolant pump (RCP) seal PRA model (logic structure and basic event values) has been developed for the FlowServe RCP seal package that will be installed. The response states that an implementation

item will be added to LAR Attachment S, Table S-2, "that will include confirmation of the above logic against the NRC approved FlowServe Topical Report."

i. Confirm whether the referenced "NRC approved" report is, "Model for Failure of RCP Seals Given Loss of Seal Cooling in CE NSSS [Combustion Engineering Nuclear Steam Supply System] Plants," WCAP-16175-P-A, Rev 0, March 2007 (ADAMS Accession No. ML071130391). If this is not the report that is used, please clarify.

ii. Provide technical design and testing evaluations that support the Turkey Point PRA model.

iii. Summarize the differences and similarities between the FlowServe RCP PRA model in the Turkey Point PRA and the PRA models in WCAP-16175-P-A. Separately discuss the logic model and the basic events values if possible.

iv. Summarize whether any testing will be required to confirm the projected reliability of the seals and how such testing is reflected in the FlowServe RCP PRA model.

v. Provide an additional Table S-3 implementation item that will specifically identify when a confirmatory evaluation of the achieved NFPA-805 transition change in risk that includes the installed and tested seals will be completed, what change in risk guidance will be used to determine any required action, and what that action will be required to replace or compliment the new implementation item 18 on page 100 of 101 in the RAI response.

RESPONSE:

i. The referenced report is not WCAP-16175-P-A. It is the Flowserve report, PRA Model for Flowserve 3 Stage N-Seals with Abeyance Seal, Revision 0, 12/20/13 (Enclosure 1).

ii. The technical design and testing evaluations that support the Turkey Point PRA model are documented in the Flowserve report, PRA Model for Flowserve 3 Stage N-Seals with Abeyance Seal, Revision 0, 12/20/13.

iii. The major difference from the N-9000 seal is the fact that the N-Seals with abeyance extend the time the seal package successfully prevents an RCP seal LOCA when the RCPs are running and seal cooling and injection have failed. In this scenario, the seals will remain intact for up to 2 hours, although the Turkey Point PRA model conservatively credits only 1 hour. For those cases where the RCPs are stopped early in the transient, e.g., a loss of offsite power, the N -Seal package with the Abeyance seal virtually guarantees that no RCP seal LOCA will occur. The N-9000 seal performance, as analyzed in WCAP-16175-P-A, under these conditions is very similar. See the table below.

Feature	N-Seals (Flowserve) with Abeyance Seal	N-9000 Seals (WCAP-16175)
Time to trip RCPs to avoid seal LOCA given loss of seal cooling and injection	2 hour*	20 minutes
Leakage (gpm/pump) for a loss of seal cooling and injection with RCPs not tripped in time	480 gpm/pump**	480 gpm/pump*
Probability and leakage (gpm/pump) for a loss of seal cooling and injection with RCPs tripped in time	< 1E-04 probability of leakage (assume 480 gpm/pump*)	< 1E-03 probability of leakage (assume 480 gpm/pump*)

* Turkey Point PRA model conservatively credits only 1 hour
** 480 gpm/pump is the maximum leakage possible.

iv. No further testing to confirm the projected reliability of the seals is planned. In addition to the testing performed by Flowserve, the N-seals are currently being used at a few sites that provide additional assurance for the projected reliability.

v. Table S-3 Implementation Item

New Item proposed in FPL letter L-2014-071dated April 4, 2014, Page 101 of 101:

> Confirm consistency between the PRA model logic used for modeling the Flowserve seals with NRC-approved Topical Report for these seals when the Topical Report is approved.

New Revised Table S-3 Implementation Item:

> Upon NRC approval of the Flowserve topical report for the Reactor Coolant Pump (RCP) seals and related PRA model, the Turkey Point PRA model shall be reviewed using the final version of the topical report as well as any exceptions/clarifications included in the NRC approval to determine if the internal events and Fire PRA require a revision. The Turkey Point internal events and Fire PRA will be updated, if applicable, with the latest RCP seal information. If the updates results in a risk increase greater than the self-approval limits (1E-07 for CDF and 1E-08 for LERF), FPL will take action to reduce the risk results to within the self-approval limits. Compensatory measures established prior to the RCP seal replacement shall remain in place until the calculated risk increase is within the self-approval limits.

Enclosure 2 to L-2014-197

FLOWSERVE APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

(5 Pages)

Flowserve Corporation

Engineered Products Division
Nuclear Products Operations
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11555 Rockville Pike
Rockville, MD 20852

Date: 05/28/2014

Document: AW05-2014A

FLOWSERVE APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

Subject: PRA Model for Flowserve 3 Stage N-Seals with Abeyance Seal
Revision 0, Dated December 20, 2013 (Proprietary)

The Application for Withholding Proprietary Information from Public Disclosure is submitted by Flowserve Corporation, pursuant to the provisions of paragraph (b)(1) of Section 2.390 of the U.S. Nuclear Regulatory Commission's regulations. It contains commercial strategic information proprietary to Flowserve and customarily held in confidence.

The proprietary material for which withholding is being requested is identified in the proprietary version of the subject report. In conformance with 10 CFR Section 2.390, Affidavit AW05-2014B accompanies this application for withholding, setting forth the basis on which the identified proprietary information may be withheld from public disclosure. The Document is considered proprietary in its entirety.

Correspondence with respect to the proprietary aspects of the Application for Withholding (AW05-2014A) or the accompanying Affidavit (AW05-2014B) should reference the applicable document and addressed as follows:

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Director Engineering
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2300 E. Vernon Ave.
Vernon, CA 90058

Sincerely,

Greg Highfill
Regulatory Compliance Proprietary Reviewer

AFFIDAVIT

STATE OF CALIFORNIA:

COUNTY OF LOS ANGELES:

Before me, the undersigned authority, personally appeared Greg Highfill, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Flowserve Corporation, and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

Greg Highfill
Regulatory Compliance Proprietary Reviewer

Sworn to and subscribed before me
this 28 day of May 2014

Notary Public

DASIANO G. VALLEJO
Commission # 1986643
Notary Public - California
Los Angeles County
My Comm. Expires Aug 26, 2016

(1) I am Manager, Regulatory Compliance for Nuclear Products Operations, Flowserve Corporation, and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing and rule making proceedings, and am authorized to apply for its withholding on behalf of Flowserve.

(2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations and in conjunction with the Flowserve Application for Withholding Proprietary Information from Public Disclosure accompanying this Affidavit.

(3) I have personal knowledge of the criteria and procedures utilized by Flowserve in designating information as a trade secret, privileged or as confidential commercial or financial information.

(4) Pursuant to the provisions of paragraph (b)(4) of Section 2.390 of the Commission's regulations, the following is for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.

I. The information sought to be withheld from public disclosure is owned and has been held in confidence by Flowserve.

II. The information is of a type customarily held in confidence by Flowserve and not customarily disclosed to the public. Flowserve has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute Flowserve policy and provide the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release or which might result in the loss of an existing or potential competitive advantage, as follows:

a. The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Flowserve's competitors without license from Flowserve constitutes a competitive economic advantage over other companies.

b. It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.

c. Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.

d. It reveals cost or price information, production capacities, budget levels, or commercial strategies of Flowserve, its customers or suppliers.

e. It reveals aspects of past, present, or future Flowserve or customer funded development plans and programs of potential commercial value to Flowserve.

f. It contains patentable ideas, for which patent protection may be desirable.

There are sound policy reasons behind the Flowserve system which include the following:

a. The use of such information by Flowserve gives Flowserve a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Flowserve competitive position.

b. It is information that is marketable in many ways. The extent to which such information is available to competitors diminishes the Flowserve ability to sell products and services involving the use of the information.

c. Use by our competitor would put Flowserve at a competitive disadvantage by reducing his expenditure of resources at our expense.

d. Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, anyone component may be the key to the entire puzzle, thereby depriving Flowserve of a competitive advantage.

e. Unrestricted disclosure would jeopardize the position of prominence of Flowserve in the world market, and thereby give a market advantage to the competition of those countries.

f. The Flowserve capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.

iii. The information is being transmitted to the Commission in confidence and, under the Provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.

iv. The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.

v. The proprietary information sought to be withheld in this submittal/Affidavit is that which is appropriately marked in the "PRA Model for Flowserve 3 Stage N-Seals with Abeyance Seal" Revision 0, Dated December 20, 2013 (Proprietary) being transmitted along with the Application for Withholding Proprietary Information from Public Disclosure (Document #AW05-2014A). The proprietary information as submitted by Flowserve is expected to be applicable for review only, and may be used only for that purpose.

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Flowserve because it would enhance the ability of competitors to provide similar product, calculational models and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to address NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the technology described in part by the information is the result of applying the results of many years of experience in an intensive Flowserve effort and the expenditure of a considerable sum of money.

In order for competitors of Flowserve to duplicate this information, similar technical programs would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended.

Further the deponent sayeth not.

PROPRIETARY INFORMATION NOTICE

Transmitted herewith is the proprietary version of a document furnished to the NRC in connection with requests for informational use only. The document is to be considered proprietary in its entirety.